

NORFOLK COUNTY COUNCIL.

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# ANNUAL REPORT

OF THE

County Medical Officer of Health

AND

School Medical Officer

FOR

1921.

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PART I.


# 15TH ANNUAL REPORT

OF THE

School Medical Officer.

BY

J. T. C. NASH, M.D., C.M. (Edin.), D.P.H. (Camb.), C.M.O. etc.



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# COUNTY SCHOOL MEDICAL INSPECTION STAFF

during 1921.

## School Medical Officer :

J. T. C. NASH, M.D., C.M., D.P.H., C.M.O.

## Senior Assistant School Medical Officer :

KENWAY T. WILLIAMS, M.R.C.S., M.D. (Appointed 1st Dec., 1919)

## Assistant School Medical Officers :

N. CAMPBELL, M.B., C.M., D.P.H. (Appointed Dec., 1908).  
L. D. STEPHEN, M.B., Ch.B. (Appointed 15th Sept., 1919, resigned  
30th April, 1921).  
SUSAN S. BRYCE, M.B., Ch.B. (Appointed 24th Nov., 1919).  
MARGARET HAMMOND, M.R.C.S. (Appointed 13th Sept., 1920).  
H. W. SEXTON, M.R.C.S. (Appointed 1st May, 1921).

## School Dentists :

A. A. SUMPTER, L.D.S. (Appointed 1st March, 1914).  
D. W. ELLIOTT, L.D.S. (Appointed 19th January, 1920, resigned  
24th March, 1921).  
E. H. HOWLETT, L.D.S. (Appointed 1st February, 1920, resigned  
30th April, 1921).  
P. MILLICAN, L.D.S. (Appointed 17th March, 1920).  
A. J. CAIRNS, L.D.S. (Appointed 1st July, 1921).  
J. NIXON, L.D.S. (Appointed 5th September, 1921).

## School Nurses :

C. CHEYNE (Trained Nurse). Appointed 15th September, 1919.  
resigned 8th April, 1921.  
D. E. DAVIES (Trained Nurse). Appointed 15th September, 1919.  
W. M. LARGE (Trained Nurse). Appointed 1st July, 1920.  
A. VICKERS (Trained Nurse). Appointed 1st October, 1920.  
O. N. JESSOP (Trained Nurse). Appointed 1st January, 1921.  
M. GOODING (Trained Nurse). Appointed 1st May, 1921.  
P. ALLNUTT (Trained Nurse) } Transferred resigned 30/11/21  
E. B. BYGRAVE (Trained Nurse) } from  
H. S. GOUGH (Queen's Nurse) } Attendance Staff resigned 12/9/21  
A. HOLDEN (Trained Nurse) } on 6th June,  
E. M. MARSHALL (Trained Nurse) } 1921. resigned 31/8/21  
M. HANNANT (Trained Nurse). Appointed 1st October, 1921, resigned  
31st January, 1922.  
H. D. ROSS (Trained Nurse). Appointed 8th November, 1921  
A. COSTAIN (Trained Nurse). Appointed 21st November, 1921.

## Clerical Staff :

C. J. HUBBARD.	Miss M. GAY	Miss B. SMITH
S. H. BISHOP.	Miss I. BANHAM	

## STATISTICAL SUMMARY.

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### LOCAL EDUCATION AUTHORITY: NORFOLK COUNTY COUNCIL.

Area of Administrative County	-	-	1,303,570 acres
(excluding King's Lynn)			
Assessable Value of County for Special Purposes			£1,515,904
Population of County, Census 1921 (apart from Norwich, Yarmouth, and King's Lynn, which have separate Education Authorities)	-		322,914
Education Rate, 1921-22—			
Elementary 1/8	{	1d. Rate producing for Elementary Education	£6,316
Higher - 4d.		for Higher Education	£6,679
Average Number of Children on the Registers of the Public Elementary Schools in the Administrative County of Norfolk during the year 1921	-	-	49,711
Average Attendance	-	-	45,535
Number of Elementary Schools under the Education Authority	-	-	493



The Shirehouse,

Norwich,

March, 1922.

In my last report I outlined the Scheme adopted by the County Council as regards the School Medical Service.

1. **Staff.** The County Medical Officer of Health is the School Medical Officer and head of the School Medical Service. Assisting him is the Senior Assistant School Medical Officer, responsible for the effective working of the Scheme of Medical Inspection and Treatment. Under the direction of the S.M.O. and S.A.S.M.O. are four Assistant School Medical Officers and four Dentists, each with defined areas. In the School Medical Staff there was one change, Dr. W. H. Sexton being appointed on May 1st, 1921, A.S.M.O. for the Western area *vice* Dr. Stephen, who resigned to take up an appointment elsewhere.

As regards Nurses, it was decided, in April, 1921, to amalgamate the work of the existing 5 School Nurses, and the 5 Nurse Attendance Officers, bringing 9/10ths of the work of each nurse under the School Medical Officer, thus securing 10 School Nurses instead of 5, with areas reduced correspondingly. There were 4 changes among the whole time Nursing Staff in 1921. A number of approved medical Practitioners in the area, who have satisfied the School Medical Officer as to their experience in connection with the prescribing of Spectacles by the refraction method; or in connection with the operative removal of tonsils and adenoids, continue to assist in the treatment of these defects on vouchers issued by the Education Committee. Local nurses are utilised in some cases by arrangement with the Norfolk Nursing Federation. The Dentists, being provided with fitted Dental Vans, combine inspection and treatment at each visit to each school.

2. **Clinics.** Owing to the strained financial position, the Board of Education decided that only 6 Clinics should be opened at present. These are situated at North Walsham, Wymondham, Wells, Walsoken, Fakenham, and East Dereham; the expenditure on these in 1921-22 to be limited to £274. Each Assistant School Medical Officer is responsible for the treatment of minor ailments at the Clinics in his or her area—the actual treatment being carried out by the School Nurses under the supervision of the A.S.M.O.

3. **Local Care Committees.** These vary in enthusiasm and utility in different parts. In any case, the Head Teacher is usually the most active member: in some instances the only active agent. While expressing gratitude for the work done in many instances by L.C.C., Dr. M. Hammond emphasises the need for care in the selection of individual members.

4. **Supervision of the School Medical Service.** The S.M.O., being also County Medical Officer of Health, the School Medical Service is co-ordinated with the other health activities of the County Council. The S.M.O. exercises control of the system of notification of infectious illnesses by the School Teachers, duplicates of which are sent to the Medical Officer of Health of the district in which the School affected is situated, who can thus collaborate with the S.M.O. in measures for dealing with infectious diseases. In the same way matters arising out of School Medical Work which need to be referred to the departments dealing with Tuberculosis, Venereal Disease, Health Visiting,

Maternity and Child Welfare, Hospital Isolation, Housing, or Hospital or Laboratory facilities are appropriately dealt with. As regards the detailed executive duties of school medical inspection and ancillary treatment carried out by the Staff of Assistant School Medical Officers, School Dentists, and School Nurses, including adequate supervision; administration is chiefly in the hands of the Senior Asst. S.M.O., who under the S.M.O., is responsible for the effective working of the Scheme of School Medical Work. Each Assistant School Medical Officer is responsible in a defined area for the inspection and supervision of the treatment of school children arising out of medical inspection in that area. Where no approved practitioner is available for the refraction tests for Spectacles, the Asst. School Medical Officers hold Eye Clinics for this purpose. They also instruct and supervise the School Nurses as to the treatment of minor ailments at the School Clinics in their respective areas, and give hygienic advice to teachers and to mothers attending with their children. Occasionally they administer anæsthetics in connection with dental work. The School Dentists, each provided with a properly equipped travelling Dental Van, proceed from school to school according to a pre-arranged itinerary. The School Nurses act under directions sent them from the School Medical Officer following Reports from School Medical Inspection or from Head Teachers; and are also employed in systematically examining every child, in every school, as regards uncleanliness, and attend at the School Clinics.

The work of all the above Officers is scheduled day by day and returned weekly to the County Office for consideration, abstraction, and tabulation.

**5. Arrangements with Hospitals.** Operations for the removal of Tonsils and Adenoids were undertaken by the following hospitals where a Voucher was issued by the Committee—

West Norfolk and Lynn Hospital (Lynn).  
Norfolk and Norwich Hospital (Norwich).  
Jenny Lind Hospital (Norwich).

**6. Co-ordination.** Beyond the arrangements alluded to in a preceeding paragraph but little more can be done until Sect. 3 (1) (d) of the Ministry of Health Act, 1919, is enforced by Government. This Section however allows discretionary powers to the Minister of Health which are being exercised.

**7. School Hygiene.** The Assistant School Medical Officers make note of unhygienic conditions capable of remedy. District Medical Officers of Health and District Sanitary Inspectors are empowered to inspect School Buildings and report defects: such notes and reports are referred to the Education Department by the S.M.O.

I am indebted to Mr. Bullen, Building Inspector, of the Education Committee, for the following list of improvements effected during the year.

List of Improvements, etc., to Schools during year ending March 31st, 1922.

VENTILATION.—Blofield.

IMPROVEMENTS WATER SUPPLY.—Langham, Terrington Boys, Barningham, Cranworth.

DRAINAGE, SANITARY CONVENIENCES AND LAVATORIES.—Snettisham (New Scavenging Bin, etc., on dry solid System), Stokesby (Drainage).

HEATING —Blofield, Melton Constable Witton.



PLAYGROUNDS.—Watton, Diss Victoria Road, Snettisham, Downham Market, Thurlton, Thetford Girls, Barford.

PURCHASE EXISTING SCHOOLS AND HOUSES.—Kenninghall (House only), Mattishall (House only), Terrington Boys (House only), Walpole Cross Keys (School and House).

SITES FOR NEW SCHOOLS OR ADDITIONS.—Attleborough (School Garden), Beetley (School Garden), Buxton, Deopham, Rollesby, Walpole Cross Keys.

NEW HANDICRAFT ROOMS.—Reedham.

RENOVATIONS WERE ALSO CARRIED OUT TO :—95 Provided Schools, 42 N.P. Schools, 81 Teachers' Houses.

Many other schools have hygienic defects requiring remedy when the financial strain is less acute.

## 8. Medical Inspection.

(a) Age-groups of children subjected to routine Medical Inspection are given in Table I. 7,308 children (M. 3,742, F. 3,566) were inspected as Entrants; 4,779 children (M. 2,341, F. 2,438) as Leavers; 4,479 (M. 2,274, F. 2,205) as an intermediate group; and 516 (M. 256, F. 260) of other ages; giving a grand total of 17,082 children who underwent routine School Inspection. In addition 741 children (M. 360, F. 381) were specifically referred to the Medical Officers for Special Inspection, and 10,769 children previously found with defects were re-examined. Altogether a total of 28,531 individual children were medically inspected by the Inspecting Medical Staff. In addition to these more than 1000 children were passed under medical review by the School Medical Officer in connection with investigations into outbreaks of infectious diseases.

(b) The Boards Schedule was fully followed.

(c) In connection with the EARLY ASCERTAINMENT OF CRIPPLING DEFECTS the County Health Visitors and Nurse School Attendance Officers report cases which come to their notice—many of them in children below school age. A register of children suffering from these defects is kept. The School Medical Officer, in the earlier part of the year, procured hospital treatment for some of these through the kind offices of Sir Hamilton Ballance, F.R.C.S., and later through the contributory scheme initiated by the Hospital Authorities. Cases of tuberculous bone and joint disease are referred to the Tuberculosis Department. Severe defects due to Rickets are uncommon in this agricultural county. More frequently new cripple cases are found to be due to Poliomyelitis or Cerebral Palsy, etc.

(d) As previously noted, small schools with only one class room must suffer from some disturbance of the usual school arrangements on the day of medical inspection—but such disturbance rarely affects more than one session.

## 9. Findings of Medical Inspection. (Table II.).

(a) MALNUTRITION. Of 17,082 children examined in the course of Routine Medical Inspection, only 336 were recorded as suffering from Malnutrition in 1921. I have in previous reports paid deserved tribute to the arrangements so considerately made by some teachers. Further testimony is borne by Dr. M. Hammond: "One is pleased to note in the majority of cases the personal pride and care taken by the teachers in the children's welfare. In one of my

Schools infants are provided with milk at the mid-morning break; at another, hot cocoa is made in the dinner hour for children living at a distance—in both cases the actual cost being borne by the parents, but feasible only by the initiative and forethought of the teachers.”

Dr. H. W. Sexton is of opinion that “Mouth breathing” is the root cause of most of the cases of underweight.” Many teachers now realise the importance of training in nose breathing.

(b) **UNCLEANLINESS.** Under “Supervision of the School Medical Service,” mention is made above of the systematic work of the School Nurses as regards uncleanliness. Dr. M. Hammond remarks “The good work done by the nursing staff has been a tremendous asset in maintaining increased cleanliness and improved physique.” Out of over 17,000 routine medical inspections, only 313 children were referred for treatment on account of uncleanliness of the head and 27 children for uncleanliness of the body. It is again and again pointed out by School medical inspectors and nurses that a small number of families whose standard of cleanliness is low is responsible for the majority of cases of pediculosis found. As I have stated in previous reports, but little effect is produced upon these ‘impossible’ people by warnings, exclusions, or even prosecutions. For this reason alone no slackening of effort is permissible in order to attain an even higher standard of cleanliness.

#### (c) **SKIN DISEASES.**

*Ringworm.* There appeared to be a diminution in the incidence of ringworm among the routines—57 children being referred for treatment for ringworm of the head and 1 for ringworm of the body. The corresponding figures the previous year were 173 and 10. Four other cases were noted as requiring to be kept under observation, as compared with 62 the previous year.

*Scabies* (the Itch) and *Impetigo*. There was an equally noteworthy diminution in these affections; 38 cases of Scabies in 1921 as compared with 194 the previous year, and 57 of Impetigo as against 273 in 1920.

(d) **EYE AFFECTIONS.** External Eye Disease. Only 140 routines were referred for treatment for Blepharitis and Conjunctivitis, as compared with 800 in 1920. This is additional testimony to improved cleanliness.

(e) **DEFECTIVE VISION.** Only 490 out of 17,082 children subjected to routine Medical Inspection were referred for treatment, or less than 3%, though an additional 367 were noted to be kept under observation. These numbers are considerably below our average, and one is tempted to wonder whether the unusually bright weather which characterised the year 1921, and consequent more uniform illumination of the Snellen Test Cards throughout the year, had something to do with the results.

(f) **EAR AFFECTIONS.** Here again the numbers recorded with defective hearing and Otitis Media are unusually small.

(g) **AFFECTIONS OF NOSE AND THROAT.** 9.2 per cent. of the children medically inspected shewed evidence of these. 2 per cent of the routines were referred for treatment on account of *Enlarged Tonsils* alone, while a nearly equal number were to be kept under observation. For *Adenoids* alone, 133, or less than 1%, were referred for treatment; while 94 were referred for treatment for both enlarged tonsils and adenoids.



(h) HEART AND LUNG AFFECTIONS. Only 5 cases of Organic Heart Disease and 37 of Functional Heart Trouble were noted, while Bronchitis and other non-Tubercular Lung affections were, as might be expected, inconspicuous among children attending school.

(i) TUBERCULOSIS. Only 2 cases of definite Pulmonary Tuberculosis were found among the 17,082 routine inspections, but 12 others were referred for treatment or observation as suspicious. Advantage was taken of the recent appointment of a Tuberculosis Officer to seek his opinion on most of these suspected cases. All cases of Tuberculosis are now referred to the Tuberculosis branch of the Public Health Department. Among the 741 children presented for Special Examination 6 were referred as definite Pulmonary Tuberculosis and 13 as suspected. Reference to the Tuberculosis Officer determines their need for treatment, and facilitates admission to a Sanatorium if, in his opinion, such treatment is indicated.

As regards non-Pulmonary Tuberculosis only 8 cases (5 glands, 2 hip) were recorded amongst the 17,082 routines and 6 (4 glands, 2 osseous) among the 741 specials.

(j) DEFORMITIES. 3 cases of Spinal Curvature, 26 of Rickets and 55 of other forms of deformity (paralysis, club-foot, etc.), were recorded.

10. **Dental Defects.** Our records of dental defects found by School Medical Inspectors since 1908, indicate that on an average three out of every four children medically inspected have dental defects. 4 School Dentists, each provided with an equipped dental van, now make separate inspections, the results of which are recorded on special cards. The total number of children inspected by the dentists in 1921, according to cards sent in, was 12,264, but there is reason to believe that one dentist, who has left the district, did not send in all the cards of children inspected, but only those of children whose parents consented to treatment. The children requiring treatment numbered 9,802, 80%. When the consent of parents has been obtained, treatment follows. 4,962 children actually received treatment, these children made 7,011 attendances at the Dental Clinics. 2,397 children were re-treated as the result of periodical examination. The parents of 1886 children inspected for the first time declined treatment, while the parents of 2,691 declined treatment after re-examination.

The importance of the treatment of dental defect is, not unnaturally, ill understood among a rural population which has had hitherto no facilities for treatment. It will naturally take time and tactful propaganda to convince parents of the duty they owe to their children by taking advantage of the opportunities provided by the Authorities.

The Dental Scheme is intended to provide that all children between 6 and 8 in attendance at the schools visited are inspected by the dentists every year, and that each subsequent year these are to be subjected to re-examination and, where necessary, re-treatment. In the course of 6 or 7 years practically every child in a school should be subject to re-examination (and re-treatment if required).

There can be little doubt that an increase of the Dental Staff will be required to cope with the work before long, especially when the population as a whole becomes alive to the value of dentistry. The majority of the children of other age groups than 6-8, given in Table IV. as inspected by the dentists, were children referred by the School Medical Inspectors, or teachers, as specially requiring dental aid.



Under the present Scheme, the children inspected by the School Dentists include (a) all children who have reached the age of 6 since the previous visit, (b) all children previously seen by a School Dentist, (c) all children recorded in the Medical Log Book as urgently needing dental treatment, (d) any child suffering from acute toothache at the time of the visit (if desired). Before the visit of the Dentist, Head Teachers are supplied with notices which are forwarded to the parents. Perforated consent slips are attached, which parents sign if they desire to have their children treated, and return to the Head Teacher, who hands them to the School Dentist. Treatment is only given when written consent is given. Cases of refusal are referred to Local Care Committees, so that they may interview parents and explain the importance of treatment.

**11. Infectious Disease.** The method for notification of suspected infectious disease by school teachers in this County as described in former reports is particularly valuable, duplicate information being sent to the School Medical Officer and also to the district Medical Officer of Health. Several district Medical Officers of Health testify approval of this means of notification, bringing outbreaks of infectious disease earlier and more completely to their notice than is possible by the ordinary channels. The notification of infectious disease occurring among about 500 schools, in an area of  $1\frac{1}{3}$  million acres, obviously means a considerable correspondence for the S.M.O., more especially when a rapidly spreading epidemic of Influenza is in progress. Notification by teachers cannot be dealt with entirely on stereotyped lines. Additional information is often required and for this purpose Symptoms "Forms" are sent for a teacher to fill in any detailed symptoms such as vomiting, cough, rash, &c., which may have been noticed while the child was at school, giving dates. In the case of *Measles*, the Measles Register for each school continues to be of the utmost assistance to the School Medical Officer, whose advice as to measures to be taken is founded on his knowledge of the natural history of each kind of infectious disease.

The institution of a County Laboratory during 1921, under the direction of the County Medical Officer of Health, who is also School Medical Officer, has proved of immense service, emphasized by its inception just prior to an epidemic wave of prevalence of Diphtheria.

In dealing with Diphtheria outbreaks at schools it has been my practice for the last 23 years to visit a school where there is any evidence that school attendance is a probable factor, and to clinically examine the nose and throat of every child in a particular class or classes; or even the whole school, including the teachers. I do not take Swabs indiscriminately from every child, but only from the throats or noses of such as show some departure from the normal. Generally, when the evidence clearly implicates the school as a centre of infection one finds one or more children in attendance with definite clinical evidence of Diphtheria of nose or throat—more often the former. More frequently there is no unmistakable clinical Diphtheria, and evidence is then sought from swabbings of abnormal Mucous Membranes. Occasionally the Klebs-Löffler bacillus is found, but much more frequently is noted a *Diphtheroid* bacillus not giving all the tests of K.L.B. Those children with definite K.L.B. are excluded together with other children living in the same house, and such are not re-admitted to school until the district Medical Officer of Health gives a "Return to School" certificate after the usual precautions have been taken, and he is satisfied that the home is free of infection. This, of course, includes clearance swabs of infected children. Children with diphtheroid bacilli are excluded for a fortnight unless the bacilli are of so suspicious a nature that the M.O.H.



is requested to have a further swab taken before permitting the child to return to school. Only 54 closures of schools were made in 1921 as compared with 148 the previous year, as follows :—

CLOSURES UNDER ARTICLE 45 (B).		
Closed on advice of S.M.O.	-	53
„ „ of District M.O.H. with subsequent approval of S.M.O.	-	1
	Total	54

(This total includes 4 closures of Departments only).

No schools were closed under Article 57.

Diseases responsible for school closure were:—Measles 5, Diphtheria 12, Influenza 10, Scarlet Fever 8, Whooping Cough 9, Mumps 3, Mixed Infections (coughs, colds, sore throats, etc.) 7. 7,599 children were temporarily excluded or re-excluded under Art. 53 (B) on account of infectious complaints.

### Supplementary Note on INFECTIOUS DISEASES.

This important section of School Medical Work which brings such work into intimate correlation with the general public-health services, I keep under my own immediate supervision and direction, working in close co-operation with the District Medical Officers of Health. Our scheme of notification from teachers in duplicate, (1) to the School Medical Officer, (2) to the District Medical Officer of Health enables both the S.M.O. and the D.M.O.H. to be made aware of influences prejudicial to health. Instructions are issued to teachers, which include the reporting of the absence of several children of one family from school at the same time for illness, even if there is no information as to the nature of the illness. Such absence of a family is suggestive of an infectious illness and if reported early may, and often does, enable measures to be taken to prevent the spread of disease. Sometimes school notifications result in the discovery of some unusual or anomalous infection. For instance, in the spring of 1921 notifications from several schools impelled me to visit various districts and schools in the county and to become aware of the prevalence of an anomalous infective disease. Close enquiry into a large number of individual cases showed that the incubation period of the disease was about 4 days, and that infection was probably *via* the tonsils which became somewhat inflamed with a slight exudate. There was only slight fever and exceptionally a faint rosy rash on the trunk. Initial symptoms were headache, sore-throat, nasal catarrh and slight fever (a small proportion of cases had also vomiting and rash). The incubation period being almost consistently 4 days, the rash and vomiting only occasional, and the body temperature but slightly raised in all the cases, *ordinary* scarlet fever could be ruled out. Other symptoms noted in some cases included slightly enlarged and inflamed tonsils, a vesicular rash on the soft palate, tongue slightly furred, with occasionally enlarged fungiform papillæ,

nasal discharge, pre-mastoid glands enlarged. One case out of very many showed slight desquamation of the hands. It is possible that the infection may have been a variant of scarlet fever of a very mild type; or it may have been a manifestation of protean influenza. A similar outbreak was described by Dr. Dunn, M.O.H., of combined districts in Essex and Hertfordshire, some years ago, and hence is sometimes called Dunn's disease.

In connection with the evolution of disease and of epidemics, on which I have ventured to make several contributions to medical literature, the above is of interest; as is also the following account of an anomalous infection 3 months later at another school, the symptoms in the latter instance suggesting more a variant of *Diphtheria*. I have from time to time adduced evidence both clinical and bacteriological that there often is a subtle connection between scarlet fever and diphtheria. In this connection also the account is of interest to epidemiologists.

#### Cases seen at a Girls' School on March 14th, 1921—

1. O.S. aet. 12, was absent from school Feb. 4/21 on account of "swollen glands." On 14/3/21, T. 98.6 P. 120 (thready) feels faint, sick, and tired. Tongue clean and tremulous, flush both sides of nose, glands enlarged—swab from throat—result, negative.
2. G.S. 9., 7th, T. 100.4, 8th 99.2, 14th 96.2. Has slight eczema at left angle of mouth, no sore throat, slight enlargement of cervical (pre-sterno-mastoid) gland, slight nasal discharge. Nasal swab—result, Diphtheroid (Hoffmann) bacilli.
3. E.F. 13, T. 99.4. Headache, dizzy, has small ulcer back of pharynx. Swab result—Diphtheroid (Hoffmann) bacilli.
4. W.W. 13. Headache, slight deposit R. tonsil. Swab result, Hoffmann.
5. V.H. 13. Enlarged glands, throat slightly inflamed, small ulcer and scab on right of nasal septum. Swab result, Hoffmann.

Among 110 infants inspected, one was noted with a furred tongue with enlarged papillae, a few with catarrh or enlarged glands, one with a blocked nose—swab result negative. There were very few boys affected in the Boys' School, one had follicular tonsillitis—swab result, Hoffmann. Another with crusts in nose—swab result negative. Two others with slight nose and throat symptoms, swabbed—result negative.

I am accumulating further clinical and bacteriological evidence to supplement the evidence I submitted in the first decade of the present century as to an evolutionary connection between scarlet fever and diphtheria; diseases which statistics indicate epidemiologically have often concomitant waves of prevalence.

Such observations as the above are asked for by the Ministry of Health and the Board of Education, and are also welcomed by the profession, medicine not being an exact science.



12. **Co-operation of Parents.** The following percentages of parents availed themselves of the opportunity of being present at the Medical Inspection of their children during 1921.

Entrants, 57·2 %   Leavers, 37·53 %, 8-9, 48·45 %   Specials, 35·49   Other Age Groups 47·87.

When present the parent acquires first hand knowledge as to any defect, and appropriate measures for amelioration.

When parents do not attend they are informed in writing.

Local Care Committees in following up, naturally invoke the co-operation of the parents. Dr. Hammond reports that, generally speaking, there is an increased alertness on the part of parents to any defects in their children and appreciation of advice given by the School doctor.

13. **Co-operation of Teachers.** I have nothing to add to the deservedly appreciative remarks in former Reports.

14. **Co-operation of School Attendance Officers.** This has been most effectively secured by the amalgamation during the year of the Attendance Nurses and School Nurses.

15. **Co-operation of Voluntary Bodies.** Local Care Committees assisted in "following up." The Local Care Committees are always advised as to the date and time of the School Medical Inspection, and many avail themselves of the opportunity of meeting the School Doctor who is thus able to discuss means of providing amelioration for individual children with members of the L.C.C.

The attention of Inspectors of the N.S.P.C.C. is drawn to children when there is evidence of gross parental neglect. The Education Committee makes an annual grant in acknowledgment of the services rendered. The Norfolk Branch of the British Red Cross Society and the Women's Institutes have under consideration, on my initiative, the provision of suitable clothing for children who are sent to Sanatoria. My best thanks are due to Lady Leicester and to Lady Suffield for the kind and practical interest taken in dealing with the suggestion.

16. **Blind, Deaf, Defective, and Epileptic Children.** In my last Annual Report I outlined the means of ascertainment of defect undertaken by the Education Department. Children ascertained to be incapable by reason of mental defect of profiting by instruction in special schools are certified to the Local Control Authority for custodial care. Financial exigencies still prevent the coming into use of the special school for mental defectives capable of receiving some education. Fifty places are reserved for Norfolk children at the East Anglian School, at Gorleston, for the Blind and Deaf. The parents of four children who refused to send them to the Gorleston Home were proceeded against, with the result that three attendance orders were made.

17. **Nursery Schools.** None.

18. **Secondary Schools.** The three Secondary Schools provided by the Authority and four other Secondary Schools whose governors accepted the offer of medical inspection, were each visited once each term. Inspections were made of "Entrants," "Leavers," and "Specials." Among both "Entrants" and "Leavers" girls outnumbered boys by three to one. All "Specials" were given a full routine examination. Seventy-seven (24 boys and 53 girls) were re-examined. Table II. shows 218 defects found among 746 children inspected, 138 requiring treatment.

In point of numbers defective vision was the principal defect, 22 cases being referred for refraction. Eighteen cases of defects of nose and throat were referred for treatment, 15 of these being enlarged tonsils or adenoids or both. Nine cases of anæmia were referred for treatment. Table VI. indicates that 78 children had dental disease and 3 heart trouble.

Of the 134 children referred for treatment, 11 had received treatment by the end of the year.

Apart from 4 cases of uncleanliness, no skin defects were found, nor any cases of tuberculosis.

19. **Employment of Children.** No cases were brought to my notice.

20. **School Baths.** None exist.

21. **Provision of Meals.** As in 1920.

22. **Miscellaneous Work.** Two hundred and fifty swabbings of throats or noses in connection with control of infectious disease were examined, at a cost of £33 12s. 6d. Three hundred and ninety five specimens of hair were examined for ringworm, of which 289 were positive. (These of course included re-examinations).

One hundred and twelve candidates for the teaching profession were examined and reported upon, as well as 14 candidates for nursing scholarships.

23. **Following Up.** The methods resolved for "following up" were stated in my last Annual Report (page 11). The number of School Nurses having been increased from 5 to 10 since June, 1921, has improved the facilities available. Dr. M. Hammond certifies to the good work done by the Nursing Staff in the district in maintaining cleanliness and improved physique. The local District Nurse, where there is one, is, if possible, made a member of the Local Care Committee; and *ipso facto* becomes aware of children needing "following up" in her district. It is, however, a matter for unbiassed consideration whether there should not be some financial arrangement when a District Nurse, as a Nurse, follows up particular cases under the direction of the School Medical Officer.



24. **Work of School Nurses.** Five wholetime School Nurses to 5th June, 1921.

On 6th June, 1921, the 5 Nurse Attendance Officers were transferred to the Medical Inspection Service, making 10 Nurses in all. 9/10ths of their time is approximately devoted to medical work, the remaining 1/10th being occupied with attendance duties.

(a) PEDICULOSIS.

Number of visits to Schools	-	-	-	2855*
Average number of visits made to each School visited	-	-	-	5.5
Total number of Children examined	-	-	-	105,124
Number of individual Children found unclean (i.e., vermin or nits)	-	-	-	6,423
Number of Children excluded at the Nurse's visits	-	-	-	1,102
Number of "Final Warning" letters sent to parents	-	-	-	115
Number of homes visited	-	-	-	665
Result of the "following up"—				
Clean	-	-	-	2156
Improved	-	-	-	3286
Unsatisfactory	-	-	-	275

\* Includes 660 complete surveys of all children in School.

In 15 Schools all the children were found quite clean, i.e., free from nits as well as from live vermin.

25. **Prosecutions.** Fourteen prosecutions for absence on account of uncleanliness were taken under the Attendance Bye-Laws. Fines were inflicted varying from 2/6 to £1. Three Parents who refused to send their children to School under the Ringworm Regulations were also proceeded against.

Fines varied from 1/- to 10/-

(b) MINOR AILMENTS.

	No. of Children followed up.	No. of cases treated by the Nurse at Clinic.	No. of cases treated by the Nurse at School or in Home.	No. reported Cured during the year.
Ringworm (Scalp)	- 405	*	*	168
,, (Body)	- 32	*	18	
Impetigo	- 364	159	102	
Scabies	- 70	*	10	
Ear Disease	- 67	43	7	
External Eye Disease	14	2	6	
Minor Injuries, etc.	- 725	576	89	

\* Figures not available.

26. **Medical Treatment.** *Review of the methods employed or available for the treatment of defects and a statement of the ascertained results of treatment:—*

As regards Hospitals there are two General Hospitals in the County—viz., the Norfolk and Norwich Hospital, in Norwich, and the Lynn and West Norfolk Hospital, in King's Lynn. Small Cottage Hospitals exist at Thetford, Cromer, Wells, Swaffham, Watton.

The Board of Management of the N. & N. Hospital devised a "contributory scheme" whereby individuals contributing regularly towards the Hospital's finances ensure priority consideration in the matter of beds. This scheme has enabled certain School children to obtain Hospital treatment more readily. The Education Committee has a contract with the Lynn and West Norfolk Hospital, and the Jenny Lind Hospital, Norwich, for the treatment of tonsils and adenoids. Some of the Cottage Hospitals are utilised by practitioners for such operations—the contract not being with the Hospital, but directly with the operating doctor.

**MINOR AILMENTS.** Six School Clinics at North Walsham, Wymondham, East Dereham, Fakenham, Wells and Walsoken are now equipped for dealing with these. Elsewhere the School Nurse demonstrates to the mothers how to deal with these under the direction of the School Doctor.

**TONSILS AND ADENOIDS.** Arrangements have been made with every hospital in the County willing to undertake these. Otherwise arrangements are in force with private surgical practitioners with experience in these operations.

**OPERATIONS FOR TONSILS AND ADENOIDS.** During the calendar year 1921, 147 vouchers were issued on Hospitals as follows:—

Norfolk and Norwich Hospital	-	-	22	} 147
Jenny Lind Hospital	-	-	70	
Lynn and West Norfolk	-	-	55	

228 vouchers were issued for operations by approved practitioners in accordance with the Authority's scheme.

Thus in all 375 vouchers were issued, resulting in 267 operations during the year, leaving 108 cases outstanding at the close of the year. As mentioned in my last report some medical practitioners who had undertaken fair numbers of the cases in past years had declined to continue operating at the present fee sanctioned.

As regards operations for enlarged tonsils and adenoids there has been a considerable outcry in some quarters (not in Norfolk). In this county we succeed in having all really urgent cases operated upon. As regards less urgent cases, I have always advocated restraint—many being ameliorated by nature, or by simple remedial measures, as noted in a previous page. The condition when the case is medically re-examined, determines whether operation should be urged or not.



The following pamphlet on "Adenoids," which was issued in 1915, is circulated where required:—

IMPORTANT.

## NORFOLK EDUCATION COMMITTEE.

School Medical Inspection.

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### **ADENOIDS.**

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*Children who cannot or do not breathe properly.*

Every child should keep the mouth shut and breathe through the nose. Every child should be taught to use a pocket handkerchief properly, and no child should be without one. (The proper way to use a handkerchief is to close one nostril by gentle pressure, and then blow through the other nostril into the handkerchief).

If your children are taught daily to do deep breathing exercises—in and out—through the nostrils, in front of an open window, you will find that it is good for their general health, and it may *prevent lung trouble later on in life.*

Sometimes owing to growths at the back of the nose (Adenoids) children are stuffy, talk thickly, and cannot breathe easily through the nostrils. These children must be treated by a doctor, as they are liable to ear disease, constant colds, dullness, and lung trouble, and specially liable to infectious diseases, in the most severe form.

*After the Adenoids have been removed it is most important to attend to breathing exercises and regular use of the handkerchief in order to prevent the adenoids returning.*

A neglected garden path is liable to weeds; a child with a neglected nose is subject to adenoids.

Sometimes there are *slight adenoids* which are not bad enough for operation but are liable to become so if neglected.

These children must do breathing exercises *at home* for 5 (increasing to 10) minutes night and morning, and must pay special attention to the use of the handkerchief. It is sometimes a good plan, especially when there is discharge, to cleanse daily by sniffing up each nostril some simple lotion—Bi-carbonate of soda one teaspoonful, and common salt one teaspoonful, in one pint of boiling water; store in a clean bottle and use warm as required. The lotion to be placed in the palm of the hand and sniffed up each nostril several times.

### *Breathing Exercises.*

1. Use handkerchief before commencing.
2. Window wide open.
3. Clothing loose.
4. The shoulders must be squared.
5. *The mouth must be shut the whole time.*
6. The child must breathe, in and out slowly through the nose, *fully* expanding the chest each time.
7. The arm and body movements must be those taught to the child for breathing exercises in School.

N.B.—Nearly half a child's life is spent in the bedroom; it is most important that the windows shall be always open winter and summer, except when absolutely impossible owing to the weather.

J. T. C. NASH, M.D., D.P.H.,

*The Shirehall,  
Norwich.*

*Chief School Medical Officer.*

TUBERCULOSIS. During 1921, the Education Committee continued the arrangements sanctioned by the Board of Education, for the treatment of children at School Sanatoria. Henceforth all cases of Tuberculosis will be referred to the Public Health Committee, which has undertaken a complete Scheme of Tuberculosis. Four cases of definite Pulm. Tuberculosis were referred for treatment, 1 of Tuberculosis of Spine, 3 of Hip.

SKIN DISEASES. Most of these are included amongst the minor ailments which are dealt with by the School Nurses under the direction of the S.M.O.

EXTERNAL EYE DISEASES. Simple conjunctivitis and blepharitis are dealt with by the School Nurses at the Clinics or otherwise under the supervision of the School Medical Officer.

VISION. Errors of refraction are corrected by (a) the School doctors at special clinics at suitable centres as can be arranged.

(b) Medical practitioners in the County who have satisfied the S.M.O. as to their experience in these cases.

(c) Eye Specialists—to whom are also referred difficult cases. Copies of all prescriptions supplied under the Authority's Scheme are filed at the central office.

In a few instances parents procure prescriptions and glasses privately. In some of these, glasses are supplied through the Committee's contract, otherwise vouchers are issued.



EYE CLINICS FOR DEFECTIVE VISION. (1). During 1921, Refraction Clinics were held by the School Medical Staff at Foulsham, Wymondham, Downham, King's Lynn, Whitwell, Swaffham. Wiggenshall St. Germans, Melton Constable, Hindringham, Stoke Ferry, Burnham Market, Cromer, Snettisham, Dersingham, Grimston, Pott Row, Feltwell, Westacre, Watton, Guist, Edgefield, Fakenham, Norwich, Witchingham, Wells, Little Walsingham, Castleacre, Wheatacre, Kelling, Field Dalling, Fring, Walsoken, Great Bircham, Fincham, Northwold, Aylsham, and Upwell.

At these there were examined by retinoscopy and prescriptions	
for glasses were issued	302
Number of spectacles provided	222

(2). Vouchers for prescriptions of glasses by specialists and approved private practitioners as per scheme—

Number of vouchers issued (January—December)	371
„ Glasses provided	269
„ Not recommended for glasses	26
„ Glasses provided upon prescription by a private doctor	7

**Ear Disease and Hearing.** Cases for mastoid operation are referred to Hospital. Otorrhœa cases not requiring operation are attended to by the School Nurses under the S.M.O. Of 13 cases of otitis media referred for treatment, on re-examination, 6 were reported cured, and 4 improved.

**Dental Defects.** Four School Dentists deal with these systematically.

**Crippling Defects.** In urgent cases the child is referred to the Norfolk and Norwich Hospital, or the Jenny Lind Hospital for Children, or the Lynn and West Norfolk Hospital. In all, 43 cases of deformity were referred for treatment of some kind (5 Rickets, 7 Spinal Curvature, 31 others). On re-examination, 5 were cured, 12 ameliorated, while 7 had left school.

**Open Air Education.** Reported upon last year. The Organiser of Physical Organisation in his report alludes to insufficient play-ground accommodation in many Schools. I gave a list of such Schools in my last report.

27. **Physical Training.** I have incorporated a précis of a report by the Committee's Organiser. As the Scheme includes the instruction of teachers, the Assistant School Medical Officers will be able to discuss with teachers Exercises calculated to correct or ameliorate certain physical defects.

The following is a précis of a report by the Organiser of Physical Training for 1921 :—

(1) 283 Schools were visited for the first time, and 1,086 demonstrations given on these occasions, averaging between three and four demonstrations per school.

(2) 22 Schools were visited a second time, and marked improvement noted in the physical and recreational training.

(3) TEACHERS' CLASSES.—3 Courses of 12 lessons each of 2 hours duration at 3 centres enabled 105 Teachers to have a complete course. In addition 51 lessons were given to *pupil teachers* at 5 centres—each course averaging 10 lessons.

The P.O. comments on the keen spirit of enthusiasm and comradeship, combined with friendly rivalry, which secured results beyond his expectation. The "Team System" was practised throughout the classes, and the standard of work attained was excellent.

(4) ACCOMMODATION.—Special note was made in the course of visits as to (a) Playground, (b) Schoolrooms, (c) School Furniture, (d) Playing Fields, (e) Clothing, and (f) Games Material

As regards the first five of these the observations of the P.O. corroborate those of the School Doctors as reported from time to time:—

- (a) Playgrounds often too small—dusty in dry weather, sloppy in wet weather.
- (b) Schoolrooms generally too small for indoor exercises.
- (c) Old-fashioned desks not adapted to the varying sizes of the children who have to use them.
- (d) Very few Schools (about 5 % only) have playing fields.
- (e) Some children are overclad and heavily shod.
- (f) There is generally a scarcity of games material.

The P.O. comments on the above facts as detrimental to the advancement of physical and recreational training.

(5) DAYLIGHT SAVINGS BILL.—The P.O. quotes the opinion of many teachers that children are allowed to keep late hours and get insufficient sleep, and consequently are lethargic in School.

(6) FOOD.—The P.O. states that many children have what he calls a 'travelling' breakfast—in other words—in order to be at School in time they have to eat breakfast on their way to School. This is certainly unsatisfactory. Cases have occurred at School where fine healthy looking children have become faint during Physical exercises. (These may, as suggested, be connected with irregularity of meals, but the teacher should be asked to note the names of any such children for special examination by the School Doctor.)

The P.O. recognises that Physical Exercises will be of no avail if children are not properly nourished. I, as S. M.O., go further and say Physical Exercises will do harm if enforced on children insufficiently nourished.

(7) The standard of Physical training in the County generally was at first found to be low, but great keenness has been displayed by teachers in availing themselves of the opportunity afforded by the visits of the P.O. of studying and cultivating a knowledge of up-to-date methods.



(8) The P.O. discusses the well-known reasons why children of urban areas are generally more alert and active than children of scattered rural areas, owing to the greater opportunities of the former for comradeship and competition at work or in play.

(9) The P.O.'s experience is that in 90 % of the Schools he visited the girls were more alert and energetic than the boys, as proved by competitive work under the Team system (no details given.)

The P.O. comments—

(10) on the nervousness of infants, and

(11) the evil effects of Inter-marriage.

(12) He has placed great emphasis upon the necessity for Teachers to be observant, and to note physical disabilities in children, and to bring the same to the notice of the School Medical Officer, and obtain advice as to the giving of Physical Exercises to such children.

(13) Reviewing in the light of many opportunities on revisiting Schools, the P.O. is satisfied that every effort is being made to further the physical welfare of the children.

(14) He concludes by acknowledging the cordial co-operation of the Teachers.

## 28. **General Remarks on Treatment of Defects.**

Tables IV. and V. give the figures based on returns by Local Care Committees, and on re-examination in the Medical Log books up to Dec. 31st, 1921. Additional cases have, of course, received treatment since. As regards the 1330 cases of defects of nose and throat, experience shows that many cases of enlarged tonsils and moderate adenoids improve with the systematic use of gargles and insufflations of Simple Saline Solution—a method of treatment which I recommended largely during the war, when I had to carry on as best I could without any medical staff. Unfortunately the exact number so treated and ameliorated have not been recorded as they might have been in the columns headed “received other treatment.” Dr. Campbell, who has had nearly 14 years experience in Norfolk, testifies to the good results of this method of treatment combined with Systematic Breathing Exercises.

## 29. **Summer Time Act.** Board of Education's Circular 1215.

Reports from Head Teachers and Assistant School Medical Officers show some differences of opinion among both as to the effect of this Act on Health and Mental attitude. Among the younger children in some schools it was thought that a larger proportion than usual were drowsy or fell asleep. The observations were made during the summer of 1921, which was abnormally bright and warm, and may of itself, apart from summer time, have accounted for this. Dr. Campbell is inclined to attribute to the unusual prolonged heat the only marked feature which he noted, viz., the loss of weight in delicate children, and a smaller increase in weight than usual in strong children. He reports that many *mothers*

stated that “ the early hour caused many children not to ‘ want ’ breakfast ”— but this again may have been partly due to the hot weather. Dr. K. T. Williams has not seen any falling off in the average standard of good health, and in this he is supported by the observations of Dr. Bryce and Dr. Campbell. In a few individual cases health might have been affected owing to insufficient parental control and knowledge as to the amount of sleep required by children.

### 30. Exclusion of Children.

(a) Statement of Number of Children, including Contacts, temporarily Excluded and Re-excluded from School during 1921.

<i>Infectious Diseases—</i>					
Diphtheria	-	-	296	Influenza	- - 192
Mumps	-	-	1239	Coughs and Colds	- - 196
Chicken Pox	-	-	933	Sore Throats	- - 133
Scarlet Fever	-	-	331	Whooping Cough	- - 493
Measles	-	-	104	German Measles	- - 7
<i>Contagious Affections—</i>					
Ringworm of Scalp (until rules are complied with)			127	Scabies	- - 313
Pediculosis	-	-	1550	Ringworm (body)	- - 6
				Impetigo	- - 426
<i>Other Diseases (generally from Certificate issued by Family Doctor)—</i>					
Lung Affections (not tubercle)		117		Jaundice	- - 13
Tuberculosis — Pulmonary*		42		Rheumatism	- - 23
Non-Pulmonary		39		Chorea	- - 53
Tonsilitis	-	-	49	Anæmia	- - 63
Epilepsy	-	-	13	Debility (General)	- - 145
Pneumonia	-	-	11	Otorrhœa	- - 19
Heart Disease	-	-	7	Gastritis	- - 20
Eye Affections	-	-	15	Eczema	- - 10
Deformities	-	-	4	Other Affections	- - 610

\* Includes 15 Suspected Cases.

(b) Particulars of Permanent Exclusions issued in 1921.

Mental Deficiency	-	14	Periostitis	-	-	1
Lung Affections (not tubercle)		4	Unstable Nervous System	-	-	2
Epilepsy	-	-	Debility	-	-	1
Tuberculosis —			Chronic Nephritis	-	-	1
Pulmonary	-	-	Heart Disease	-	-	3
Osseous	-	-	Physically Defective	-	-	2
Glands	-	-	Fredricks Ataxy	-	-	1
Hip Disease	-	-	Retinitis	-	-	1
Muscular Atrophy	-	-	Deaf	-	-	2
Osteomyelitis	-	-				
		1				

Total Permanent Exclusions during the year = 54



**Table I.—Number of Children Inspected 1st January, 1921,  
to 31st December, 1921.**

**A.—Routine Medical Inspection.**

Age	Entrants.					
	3	4	5	6	Other Ages.	Total.
Boys - -	193	659	1383	441	1066	3742
Girls - -	145	544	1435	412	1030	3566
Totals -	338	1203	2818	853	2096	7308

Age	Intermediate Group.	Leavers.			Other Ages.	Total.	Grand Total.
	8	12	13	14			
Boys - -	2274	1999	302	40	256	4871	8613
Girls - -	2205	2103	314	21	260	4903	8469
Totals -	4479	4102	616	61	516	9774	17082

**B.—Special Inspections.**

	Special Cases.	Re-examinations ( <i>i.e.</i> , No. of Children Re-examined).
Boys - -	360	} 10769
Girls - -	381	
Totals -	741	10769

**C.—Total Number of Individual Children Inspected, whether as  
Routines or Specials.**

No. of Individual Children Inspected.
28,531

**Table II.—Return of Defects found in the course of  
Medical Inspection in 1921.**

Defect or Disease.					Routine Inspections.		Specials.	
					Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.	Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.
(1)					(2)	(3)	(4)	(5)
Skin	Malnutrition	-	-	-	314	22	21	...
	Uncleanliness :							
	Head	-	-	-	313	...	15	...
	Body	-	-	-	27	...	2	...
	Ringworm :							
	Head	-	-	-	57	4	21	...
	Body	-	-	-	1	...	...	...
	Scabies	-	-	-	38	...	14	...
	Impetigo	-	-	-	57	...	19	...
	Other diseases (non-Tubercular)	-	-	-	...	...	...	...
Eye	Blepharitis	-	-	-	133	6	8	1
	Conjunctivitis	-	-	-	7	...	1	2
	Keratitis	-	-	-	1	...	...	...
	Corneal Ulcer	-	-	-	1	...	...	...
	Corneal Opacities	-	-	-	...	...	...	1
	Defective Vision	-	-	-	490	367	61	23
	Squint	-	-	-	10	7	2	1
	Other Conditions	-	-	-	11	3	1	1
Ear	Defective Hearing	-	-	-	8	3	2	...
	Otitis Media	-	-	-	8	...	3	...
	Other Ear Diseases	-	-	-	57	6	12	2
Nose and Throat	Enlarged Tonsils	-	-	-	340	299	22	9
	Adenoids	-	-	-	133	77	4	3
	Enlarged Tonsils and Adenoids	-	-	-	94	90	6	2
	Other Conditions	-	-	-	472	60	40	1
Enlarged Cervical Glands (non-Tubercular)					102	39	11	4
Defective Speech					9	2	3	...
Teeth—Dental Diseases					See Table IV. D.			
Heart & Circula- tion	Heart Disease :							
	Organic	-	-	-	3	2	...	...
	Functional	-	-	-	10	27	6	2
Lungs	Anæmia	-	-	-	278	22	30	2
	Bronchitis	-	-	-	24	4	5	...
	Other non-Tubercular Diseases	-	-	-	31	12	12	...



Table II.—Return of Defects (continued).

Defect or Disease.				Routine Inspections.		Specials.	
				Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.	Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.
(1)				(2)	(3)	(4)	(5)
Tuber- culosis	Pulmonary :						
	Definite	-	-	1	1	6	...
	Suspected	-	-	9	3	12	1
	Non-Pulmonary :						
	Glands	-	-	2	3	3	1
	Spine	-	-	...	...	...	...
	Hip	-	-	...	2	1	...
	Other Bones and Joints	-	-	...	...	1	...
Nervous System	Skin	-	-	...	...	...	...
	Other Forms	-	-	1	...	...	...
	Epilepsy	-	-	2	...	1	...
	Chorea	-	-	2	...	2	1
Defor- mities	Other Conditions	-	-	2	5	1	3
	Rickets	-	-	17	7	1	1
	Spinal Curvature	-	-	3	...	...	...
	Other Forms	-	-	44	7	4	...
Other Defects and Diseases				241	97	77	30
Number of Individual Children having Defects which required Treatment or to be kept under observation				...	5117		

**Table III.—Numerical Return of all Exceptional  
Children in the Area in 1921.**

			Boys.	Girls.	Total.
Blind (including partially blind) within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893.	Attending Public Elementary Schools - - -	- - -	...	...	...
	Attending Certified Schools for the Blind - - -	- - -	5	3	8
	Not at School - - -	- - -	...	1	1
Deaf and Dumb (including partially deaf) within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893.	Attending Public Elementary Schools - - -	- - -	...	...	...
	Attending Certified Schools for the Deaf - - -	- - -	17	15	32
	Not at School - - -	- - -	...	1	1
Mentally Deficient.	Feeble Minded.	Attending Public Elementary Schools - - -	80	39	119
		Attending Certified Schools for Mentally Defective Children -	...	...	...
		Notified to the Local Control Authority by Local Education Authority during the year -	...	...	...
		Not at School - - -	25	15	40
	Imbeciles.	At Schools - - -	2	1	3
		Not at School - - -	23	9	32
		Notified during 1921 - - -	3	2	5
	Idiots.	Total Notified - - -	9	6	15
		Notified during 1921 - - -	3	1	4
	Epileptics.	Attending Public Elementary Schools - - -	25	20	40
		Attending Certified Schools for Epileptics - - -	...	...	...
		In Institutions other than Certified Schools - - -	...	...	...
		Not at School - - -	8	4	12
Physically Defective.	Pulmonary Tuberculosis.	Attending Public Elementary Schools (including suspected Cases) - - -	62	37	99
		Attending Certified Schools for Physically Defective Children	5	10	15
		In Institutions other than Certified Schools - - -	...	...	...
		Not at School - - -	12	6	18
	Crippling due to Tuberculosis.	Attending Public Elementary Schools - - -	37	25	62
		Attending Certified Schools for Physically Defective Children	2	1	3
		In Institutions other than Certified Schools - - -	...	...	...
		Not at School - - -	15	9	24
	Crippling due to causes other than Tuber- culosis, <i>i.e.</i> , Paralysis, Rickets, Traumatism.	Attending Public Elementary Schools - - -	50	42	92
		Attending Certified Schools for Physically Defective Children	...	...	...
		In Institutions other than Certified Schools - - -	...	...	...
		Not at School - - -	9	16	25



**Table III.—Numerical Return of all Exceptional Children—continued.**

					Boys	Girls	Total
Physically Defective <i>cont.</i>	Other Physical Defectives, <i>e.g.</i> delicate and other children suitable for admission to Open-air Schools. Children suffering from severe heart disease.	Attending Public Schools	-	-	15	17	32
		Attending Open-air Schools	-	-	...	...	...
		Attending Certified Schools for Physically Defective Children, other than Open-air Schools	-	-	...	...	...
		Not at School	-	-	...	4	4
Dull or Backward		Retarded 2 years	-	-	Not available		631
		Retarded 3 years	-	-	"	"	130

**Table IV.—Treatment of Defects of Children during 1921.**

Period—January 1st, 1921, to December 31st, 1921.

**A.—Treatment of Minor Ailments.**

Disease or Defect.	Number of Children.			
	Referred for Treatment.	Treated.		
		Under Local Education Authority's Scheme.	Otherwise.	Total.
<i>Skin—</i>				
Ringworm-Head	-	78	78	78
Ringworm-Body	-	1	1	1
Scabies	-	52	52	52
Impetigo	-	76	76	76

In addition to the numbers referred by S.M.I. as above, many more children were referred for treatment by the School Nurses.

	*No. of Children seen.	*No. Treated by Nurses.	*No. Treated otherwise.	*Total.
Ringworm	2927	684	2243	2927
Scabies	621	151	470	621
Impetigo	1470	691	779	1470
Other Defects	2397	1347	1050	2397

\* Not individual Children.

Table IV.—Treatment of Defects of Children—continued.

B.—Treatment of Visual Defect.

Number of Children.									
Referred for Re- fraction.	Submitted to Refraction.				For whom Glasses were Pre- scribed	For whom Glasses were Pro- vided.	Recom- mended for Treat- ment other than by Glasses.	Re- ceived other Forms of Treat- ment.	For whom no Treat- ment was con- sidered neces- sary.
	Under Local Educa- tion Autho- rity's Scheme Clinic or Hospital	By Private Practi- tioner or Hospital	Other- wise	Total.					
1277	457	105	...	562	481	478	...	...	29
	including the following outstanding from 1920								
366	134	49	...	183	157	157	...	...	12

C.—Treatment of Defect of Nose and Throat.

Referred for Treatment.	Number of Children.			
	Received Operative Treatment.			Received other Forms of Treatment.
	Under Local Education Authority's Scheme—Clinic or Hospital.	By Private Practitioner or Hospital	Total.	
1330	a230	76	306	...
	including the following outstanding from 1920			
454	95	42	137	...

a33 Vouchers for Operations in addition to the above were issued, but no report has been made as to whether the operation has been performed.



**Table IV.—Treatment of Defects of Children—continued.**

**D.—Treatment of Dental Defects.**

Period—January 1st to 31st December, 1921.

*1. Number of Children dealt with.*

	Age Groups.								Total.
	5	6	7	8	9	10	11	12 and over	
(a) Inspected by Dentists	34	1133	2694	2840	2094	751	708	2010	12,264
(b) Referred for Treatment									9802
(c) Actually Treated -									4962
(d) Re-treated * -									2397

\* Included in (c).

*2. Particulars of Time given and of Operations undertaken.*

1	Number of half days devoted to Inspection	}	-	-	-	1264 <sup>a</sup>
2	" " " " " Treatment		-	-	-	
3	Total Number of attendances made by Children		-	-	-	7011
4	Number of Permanent Teeth Extracted		-	-	-	424
5	" " " " Filled		-	-	-	1371
6	" " Temporary Teeth Extracted		-	-	-	8718
7	" " " " Filled		-	-	-	2305
8	Total Number of Fillings		-	-	-	3676
9	Number of administrations of General Anæsthetics included in (4) and (6)		-	-	-	29
10	" " other Operations—Permanent Teeth		-	-	-	225
11	" " " " Temporary Teeth		-	-	-	3487

<sup>a</sup> As Clinics are travelling ones, visiting in the main small Schools, it is not possible to separate time for inspections from time occupied by treatment.

**Table V.—Summary of Treatment of Defects as shown in Table 4 (A. B. C. D. & F., but excluding E).**

Disease or Defect.	Number of Children.			
	Referred for Treatment.	TREATED.		Total.
		Under Local Education Authority's Scheme.	Otherwise.	
Minor Ailments - -	b207	207		207 <sup>b</sup>
Visual Defects - -	a1277	457	105	562 <sup>a</sup>
Defects of Nose and Throat -	a1330	230	76	306 <sup>a</sup>
Dental Defects - -	9290	4635	...	4635
Other Defects - -	a986	...	306	306 <sup>a</sup>
Total - -	13090			6016

<sup>b</sup> In addition many cases discovered by Nurses were treated.

<sup>a</sup> Includes cases brought forward from 1920.

**Table VI.—Summary relating to Children Medically Inspected at the Routine Inspections during the Year 1921.**

1. The total number of children medically inspected at the routine inspections. <sup>a</sup>	17082
2. The number of children in 1 suffering from—	
Malnutrition	336
Skin Disease	157
Defective Vision (including Squint)	864
Eye Disease	162
Defective Hearing	11
Ear Disease	71
Nose and Throat Disease	1565
Enlarged Cervical Glands (non-Tubercular)	141
Defective Speech	11
Dental Disease	9802
Heart Disease—	
Organic	5
Functional	37
Anæmia	300
Lung Disease (non-Tubercular)	71
Tuberculosis—	
Pulmonary { definite	2
suspected	12
Non-Pulmonary	7
Disease of the Nervous System	11
Deformities	78
Other Defects and Diseases	338
3. The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment).	1084
4. The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, etc.)	3535
5. The number of children in 4 who received treatment for one or more defects (excluding uncleanliness, defective clothing, etc.)	

<sup>a</sup> "Specials" are not included in this Table.



## SECONDARY SCHOOLS.

**Table I.—Number of Children Inspected 1st January, 1921, to December, 1921.**

### A.—“ Code ” Groups.

Age	Entrants.				
	12	13	14	Other Ages.	Total.
Boys - -	55	22	11	19	107
Girls - -	132	99	90	40	361
Totals -	187	121	101	59	468

Age	Leavers.				Other Ages.	Total.	Grand Total.
	15	16	17				
Boys - -	20	17	2		17	56	163
Girls - -	47	43	37		32	159	520
Total -	67	62	39		46	214	683

### B.—Special Inspections.

	Special Cases.	Re-examinations ( <i>i.e.</i> , No. of Children Re-examined.)
Boys - -	All specials were given a routine inspection.	24
Girls - -		53
Totals -		77

### C.—Total Number of Individual Children Inspected, whether as Routines or Specials.

Number of Individual Children Inspected.
746

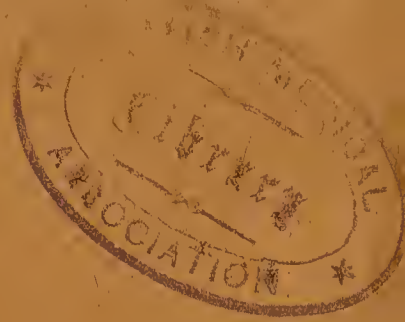
## SECONDARY SCHOOL CHILDREN.

**Table II.—Return of Defects found in the course  
of Medical Inspection in 1921.**

### Routine Inspections.

Defect or Disease.	Number referred for treatment.	Number requiring to be kept under observation, but not referred for treatment.
Nutrition - -	1	1
Cleanliness - -	4	...
Skin - -	...	...
Hair - -	...	...
Teeth - -	...	...
Nose and Throat—		
Mouth Breather - -	3	...
Tonsils - -	8	13
Adenoids - -	5	1
Tonsils and Adenoids - -	2	4
Glands - -	...	...
Eye Disease - -	3	14
Vision - -	22	18
Colour Sense - -	1	...
Ear Disease - -	...	...
Hearing - -	1	...
Speech - -	...	...
General Intelligence - -	...	...
Thorax - -	...	...
Heart and Circulation - -	1	2
Anæmia - -	9	2
Lungs - -	1	2
Nervous System - -	...	...
Chorea - -	...	...
Digestion - -	...	...
Constipation - -	...	...
Spinal Curvature - -	1	...
Flat Foot - -	...	...
Catamenia - -	...	2
Other Defects & Diseases - -	16	3
Number of Individual Children having Defects which required treatment or to be kept under observation - -	...	218





Norfolk County Council.

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**ANNUAL REPORT**

OF THE

**County Medical Officer of Health**

AND

**School Medical Officer**

FOR

**1921.**

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**Part II.**

**REPORT**

OF THE

**County Medical Officer.**





## SECTION I.

### VITAL STATISTICS.

POPULATION (1921 Census).—The provisional aggregate figures for the estimation of birth rate and death rate as given by the Registrar General are 60,588 for Urban Districts, and 254,806 for Rural Districts in the Administrative County of Norfolk. This gives a total population of 315,394 for the whole County which is 7,520 less than the figures issued in August, 1921 (322,914) but approximate to my own estimate of 315,000, in round numbers.

#### Total Registered Births, 1921—

Urban Districts	1183 ( 612 M. 571 F.)	of these	39 M. 46 F. illeg.
Rural Districts	5309 (2748 M. 2561 F.)	„	173 M. 211 F. „

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Total 6492 (7521 in 1920), (5328 in 1919)

Birth Rate, 1921—Urban Districts 19·5, Rural Districts 20·8, County 20·6.

NOTIFICATION OF BIRTHS ACTS.—Duplicates of notifications received total 5418 (Urban 1033, Rural 4385). Among Urban Districts all births were notified in King's Lynn, Diss, Thetford and Wells: but from East Dereham only 59 duplicates of notification were received (115 registered births), and from Walsoken only 45 duplicates (108 registered), from North Walsham 72 duplicates (85 registered), from Sheringham 54 duplicates (64 registered). The other 4 towns between them had 9 failures of notification (176 registered births, 167 notified).

Percentage of notified births to registered births in whole County = 83·4% (Urban 89%, Rural 82·6%). The most glaring examples of neglect of notification (at any rate as regards duplicates to the County M.O.H.) were Walsoken and East Dereham among Urban Districts. Among Rural Districts, 100% notifications were received only from Loddon and Clavering Rural District, nearly equalled by Downham Rural District, 97%: but duplicates of notification fell as low as only 62% from Mitford and Launditch Rural District.

Illegitimate births (as in 1920) were approximately 7% of the total births. Legitimate Infant Mortality 56·9, Illegitimate 74·6,

## INFANT MORTALITY.

Both in 1920 and 1921, the infant mortality rate in the County was below 60 (55·4 in 1920, 58·2 in 1921). These are highly satisfactory figures, the previous lowest record being 71 in 1916.

As a rule, warm summers correlate high infantile mortality, chiefly as the result of epidemic summer diarrhoea co-incident with excessive fly-prevalence. The effects of a hot year are noticeable in the number of deaths from diarrhoea among infants under 2 years of age. Thus in 1921 there were 47 deaths from diarrhoea among children under 2, as compared with 21, 14, 19, 25, 18 and 36 in the six preceding years; and these were largely responsible for the slight increase in the infant mortality, in 1921, as compared with the previous year. In King's Lynn there were 5 infant deaths from diarrhoea in 1921, no deaths in 1920. In spite of this and of an increase in the number of infant deaths from non-tubercular pulmonary complaints, the infant mortality in this town, in 1921, was 72·8, while it was as low as 36·3 in 1920.

## TOTAL DEATHS.

	Adm. County	Urban Districts	Rural Districts
Number	3,729	676	3053
Death rate	11·8	11·1	11·9

### Cancer Deaths

	466	87	379
Cancer death rate	1·4	1·4	1·4

### Deaths from the seven principal Zymotic Diseases.

Small Pox 0, Measles 1, Scarlet Fever 5, Diphtheria 23, Whooping Cough 16, "Fever" 4, and Diarrhoea (under 2 years) 47.

	Adm. County	Urban Districts	Rural Districts.
	96	25	71
		(15 of these diarr.)	(32 of these diarr.)
Zymotic death rate (including diarrhoea)	0·3	0·41	0·28
„ „ (excluding diarrhoea)	0·16	0·16	0·15

### Tuberculosis Deaths.

Pulmonary	251	46	205
Non-Pulmonary	68	11	57
Phthisis death rate	0·79	0·75	0·8



## NOTIFICATION ACTS AND REGULATIONS.

### Infectious Diseases.

Numbers of Notifications of Notifiable Diseases received weekly from District Medical Officers of Health during 1921.

[These numbers are subject to slight corrections by withdrawals on revision of diagnosis, or duplicate notifications.]

	Adm. County	12 Urban Districts	20 Rural Districts
Diphtheria	426	57	369
Scarlet Fever	432	138	294
Enteric (Typhoid) Fever	21	5	16
Puerperal Fever	6	—	6
Erysipelas	49	8	41
Anthrax	1	—	1
Dysentery	5	—	5
Encephalitis Lethargica	1	—	1
Malaria	20	9	11
Ophthalmia Neonatorum	16	5	11
Cerebro-Spinal Fever	1	—	1
Tuberculosis—			
Pulmonary	317	48	269
Non-Pulmonary	72	13	59

(25 Pulmo. and 7 Non-Pulmo. notifications were duplicates).

Action taken with respect to schools and school children in connection with infectious diseases given in Part I. (Report of the School Medical Officer.)

### County Laboratory.

Specimens examined during 1921—

Nose and Throat Swabs	-	1503	positive	371
Sputa	-	412	„	165
Blood Specimen for Widal	-	16	„	8

in addition to other bacteriological work

### Isolation Hospitals.

#### i. Other than Small Pox.

King's Lynn, 12 beds, Cromer, 8 beds.

Joint for Erpingham Rural District and N. Walsham Urban District, 8 beds.

Forehoe Rural District, 8 beds, Hunstanton Urban District, 5 beds.

The Norwich City Isolation Hospital takes occasional cases from the County area (St. Faiths, Henstead, Blofield, Depwade.)

ii. For Small Pox only.

King's Lynn, 14 beds, Swaffham Joint (Urban & Rural)  
8 beds, Aylsham, 2 beds, Walsingham, 2 beds.

## **VENEREAL DISEASES REGULATIONS.**

During 1921,	Norfolk new patients were treated.			
		Syphilis.	Gonorrhœa.	Other than V.
At the Norfolk & Norwich Clinic	39	47		19
„ King's Lynn Clinic	- 23	24		4

Total number of attendances during 1921—Norwich, 1208'  
King's Lynn, 397. Also 75 in-patient days at Norwich.  
42 „ Lynn.

Number of pathological examinations for Wassermann R.  
250, Spirochetes 4, Gonococci 309.

There is a tendency to a decrease in the number of cases attending the V.D. clinics, partly because of the existence of the clinics. There can be little doubt as to the wisdom of the government in promoting V.D. schemes and establishing V.D. clinics all over the country, during the war. But for these centres of free treatment, with privacy, there would have been a large increase in the incidence of Venereal Diseases by now. The advancement in the knowledge and treatment of these diseases during the present century has rendered treatment very effective in mitigating the ravages of the diseases in individuals, and in minimising the risks of their infecting others.

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## **SECTION II.**

### **MATERNITY AND CHILD WELFARE.**

This subject was dealt with in detail in my last Annual Report.

- (1) SUPERVISION OF MIDWIVES—As before, with the addition of an Assistant Inspector of Midwives.
- (2) ADVICE TO EXPECTANT MOTHERS given by Midwives, Health Visitors, and at Welfare Centres. Very little has been achieved, or indeed seems to be possible at present in securing dental treatment for expectant and nursing mothers. The Forehoe Rural District Maternity and Child Welfare Committee has provided for a few cases, including dentures, and at Woodbastwick Centre Mrs. Cator has arranged for some extractions. As emphasised last year, this is a matter of great importance in the rearing of healthy children. The effects of septic mouths in mothers goes indeed further than early infancy. There is



reason to believe that many cases of tonsillitis and adenoids in children at or below school age are due to infection contracted by kissing parents with unhealthy mouths.

- (3) ASSISTANCE AT THE TIME OF CONFINEMENT. 1,640 out of 7,521 births were attended by midwives, as midwives, and 747 as maternity nurses under a doctor. In 223 instances midwives sent for medical help; (a) on behalf of mothers 159, (b) on behalf of the infant 64. A large part of the county is still uncovered with midwives, but during 1921, fresh midwives started at St. Faiths, Hickling, Pulham, E. Dereham, Sculthorpe, North Repps and South Repps, Briston. Total amount of doctors' fees, 1921, £198 13s. 6d. Amount recovered by end of year £44 2s. 0d. The majority of births in the county are still attended by doctors. The County Public Health Committee arranged for the admission of one woman to the Norwich Maternity Institution, where she was confined safely. Two other women recommended for admission, because of likely complications, were confined at home (fortunately without untoward incident), before arrangements were completed. Any case of extreme urgency requiring immediate major operative assistance can be admitted at once to the Norfolk and Norwich Hospital.
- (4) ARRANGEMENTS FOR DEALING WITH POST-NATAL MATTERS. Three whole time Health Visitors continued to be employed by the County Council, while upwards of 60 midwives, under the Norfolk Nursing Federation, were employed as part time Health Visitors. The 3 whole time visitors paid 359 ante-natal visits; 1,591 first visits to infants under 1, and 6,557 total visits (including children 1—5). The part-time Health Visitors paid 2,990 ante-natal visits and 1,750 first visits to infants under 1, and 7,659 total visits (including children under 5). Thus altogether 3,326 visits were made to expectant mothers, and 12,047 visits were made to young children. Miss Fowler, as Inspector of Midwives, paid 230 routine and 51 special visits to midwives. Miss Fowler is also Lady Superintendent to the Norfolk Nursing Federation, and Secretary of the Norfolk and Norwich Branch of the Midwives Institute, which constitutes the Midwives' Association for the county. A good library is kept and books lent out to midwives. Arrangements are also made for lectures to midwives which tend to increase their value as health missionaries.

(5) CENTRES & CLINICS.—The King's Lynn Voluntary Centre was taken over for the year 1920, by the Municipal Authority, but reverted to a Voluntary Centre in 1921. At this clinic, sessions are held weekly (Thursdays, 2-30 p.m.), with an average attendance of 30 children with their mothers. A doctor (lady) attends fortnightly. The Centre is situated at the Friends' Schoolroom, New Conduit Street, King's Lynn. A minor ailment Centre, in connection with the I.W.C., is open weekly, on Tuesdays, 2-4 p.m. 143 attendances, children under 5; Impet 33, Ringworm 5, Hernia 4, 3 Enlarged Glands, 9 otorrh; 26 urgent cases sent to hospital.

The Swaffham Urban District Council's Infant Welfare Clinic met once a month (2nd Thursday) at the Shirehall, Swaffham. Average attendance 6 infants with their mothers. The meeting now takes place in the Church Room, Station Road.

The Wisbech (Isle of Ely) Voluntary I.W.C., serves also the Walsoken Urban District (Norfolk). Sessions are held weekly, on Fridays. This Centre is administered by a Voluntary Committee (President—Mrs. Clayton). A grant of £10 was made by the Norfolk County Council.

The Thetford (M.B.) I.W.C., is administered by a Voluntary Committee, and meets twice a month (Wednesday, 2.30 p.m.), the Town Council granting the use of premises, heating, and lighting. The M.O.H. attends the Centre regularly, and 3 trained nurses follow up at the homes. Average attendance at Centre 23. Home visits 678.

In addition to the above, the following Infant Welfare Centres held medical consultations at Clinic Sessions in rural areas, Aylsham, Blofield, Woodbastwick, Walsingham.

The Aylsham Clinic failed to make good, and was eventually closed before the end of the year.

The Blofield I.W.C., under the management of the local branch of the Red Cross Society, continued to do well.

Mrs. Cator's I.W.C., at Woodbastwick, established on similar lines, is not quite so easy of access as the one at Blofield, but Mrs. Cator makes locomotion arrangements for the attendance of mothers and children.

WEIGHING CENTRES have been formed in various parishes where babies are weighed regularly, and the village district nurse gives homely advice. The following centres are known to me—Aldborough (with Gunton), Bawdeswell, Buxton, Castle Acre, Diss, Drayton, Earsham, Great Melton, Hindringham, Kenninghall, Loddon, Ludham, Melton Constable, Ditchingham, Overstrand, Raveningham, Harleston, Saxlingham, Shipdham, Woodton.



(6) MIDWIVES ACT.—Number of Midwives in Norfolk Register 106, notification of intention to practice 123, medical help requisitioned for mothers 157, for infants 64.

(7) GRANTS FOR NURSES.—The County Council made grants of £50 each, towards seven new Nursing Associations, and grants of £10 to £20 towards the salaries of nurses of 59 Associations affiliated to the Norfolk Nursing Federation.

## BLIND PERSONS ACT.

The Norfolk County Constabulary in August, 1920, reported the number of blind persons in the Administrative County of Norfolk.

Under 5 years of age	.	-	0
Between 5 and 15	.	-	3
„ 15 and 50	.	-	58
Over 50 years of age	.	-	155
			Total
			216

Males 121, Females 95.

The negative figure for children under 5 is a tribute to the manner in which the cases of Ophthalmia Neonatorum which are notified are attended to. The above figures do not include blind persons in Institutions.

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## SECTION III.

### WATER SUPPLIES.

In a county like Norfolk which in so many districts covering a wide area, depends for its water supply on shallow wells—a year of drought, such as 1921, necessarily meant acute shortage in some places. Even one town with a deep well supply—Swaffham, felt the effects of the drought, and the water had to be strictly rationed. In some villages bottled mineral waters were freely used. It is a matter for congratulation that such substitutes were available, for in many villages the wells ran dry and water had often to be fetched some miles. Fortunately when wet weather returned no bad results were noticed. The district medical officers of health were reminded, both by the Ministry and myself, of the possibilities, but no ill report came to hand. The Marham springs maintained a plentiful supply, to the advantage of Walsoken and such of the villages in the Downham and Marshland Rural Districts which are supplied “en route.”

The meteorological conditions of 1921 were remarkable. Nearly every month gave a mean temperature above the normal, which meant evaporation of water above the average. As regards rainfall, from February to December (with the exception only of April, which gave an average rainfall), each month was deficient in rainfall. From a water-supply point of view the dryness of February was particularly serious, especially as there had been no snow in January. At Norwich, in February, 1921, on only one day did the rainfall amount to a tenth of an inch, and the total measured for the month was only a third of an inch. After the 4th day the barometer remained at or over 30 ins. Following on this, March brought only 1·19 ins. of rain, about three-quarters of an inch deficient. This was combined with a record of sunshine 27 hours above the average. In April, although snow fell on three days, and the rainfall was in agreement with the average for the month (1·71 ins.) cold drying winds accentuated the dryness of the two preceding months. May followed with a further deficiency of two thirds of an inch, there being absolute drought between the 11th and 25th, while the month's sunshine was 45 hours in excess of the average. The drought, temporarily broken by welcome showers at the end of May, continued practically through June and July, the latter month being also unusually hot, the mean temperature being 4·2 degrees above the average. The combined rainfall of June and July was only 1·05 ins. In August rain was again deficient, the total being 1·52 ins. The persistent drought was temporarily broken on September 11th and 12th, when the rainfall totalled 1·13 ins. on the two days; but another dry period followed, and sunshine was 60 hours in excess of the average, there being only 6 other days with any rain and the precipitation for these 6 days added together amounted to only one-fifth of an inch. The number of hot days recorded in October, 1921, appear to have been without precedent. The mean temperature of the month was 55·8, 6 degrees above the average, while rainfall continued deficient to the close of the year. The total rainfall for the year at Norwich was only 15·71 ins. against an average of 26·48, or a deficiency of 10·77 ins., that is 40 per cent., while sunshine was more than 200 hours in excess of the average for the year. Other districts in Norfolk had even less rain, the smallest fall being recorded at Geldeston—only 12·01 ins.

The underground water supplies of the County of Norfolk are from (1) the chalk formations, (2) the drift formations. The former underlies practically the whole of the County except in the extreme west. The latter made up of a mixture of loam, clay, gravel and sand, covers the former to an increasing depth in the Eastern part of the County. Being composed of both pervious and impervious soils, it tends to hold water in "pockets." About two-thirds of the wells in Norfolk are in the drift and do not reach the chalk, and many of them went dry. Some were deepened into the chalk and found water. At Swaffham, the chalk comes near the surface at about 250 ft. above sea-level, sloping downwards gently eastwards. In consequence, for a considerable area the level of saturation is



near the surface, and consequently wells in this neighbourhood were affected when the ground water level receded in consequence of the prolonged drought, and went dry even when at a fair depth in the chalk. But in some instances, as at Massingham, where the wells were deepened, or new wells constructed well into the chalk a fair supply was still obtainable.

Generally speaking, since the chalk formation underlies Norfolk, though shallow wells may fail, deep wells into the chalk should always procure a supply. It is a question of expense—the great water-bearing stratum is there, ready to be tapped.

Any special reference to water shortage in the District Medical Officer of Health's Reports is given on another page.

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#### SECTION IV.

### HOUSING.

The Housing (Additional Powers) Act, 1919, provides for the prevention of the closing or demolition of houses reasonably fit for habitation. A Bill, containing a clause, enabling local authorities compulsorily to hire houses that had been empty for three years, was rejected by Parliament.

In some districts some houses are unoccupied, and others utilised for storing furniture. Thus, for instance, in Downham R.D., 47 houses are unoccupied, and 24 more used for storing purposes, out of a total of 3,812 houses, which means that only 3,741 are occupied. One owner has 5 houses empty, "reasonably fit," but refuses to let any of them. In this district there are several cases of overcrowding, of these, 9 are so gross that there is less than 200 cubic feet per head. In 13 parishes, 20 cases of overcrowding in this district were abated, 8 moved into a larger house, 2 obtained an additional house, 1 had a parlour converted into a bedroom, 2 had an additional bedroom built, 1 family left the district, and 5 families were reduced in numbers.

Some reports (*e.g.*, that for E. & W. Flegg) deplored the action of the Government in making Housing Schemes abortive. Owing to the economic rents for houses erected by local authorities under the housing scheme, which were fixed by the Ministry, being greatly in excess of prevailing cottage rents in the parishes of many districts, comparatively few of these are tenanted by agricultural workers unless more than one member of the family is contributing to the resources of the family.

Particulars of New Houses obtained from Reports of District Medical Officers of Health, checked by returns specially asked for from the Clerks to the District Councils are given on pp. 10 & 11.

No reply was received from the Clerks to the East and West Fleggs R.D., Loddon and Clavering R.D., Cromer U.D., and Sheringham U.D.



The figures exactly tally in 10 districts (5 Urban and 5 Rural). Where they do not agree, I have given the Clerks' figures as shewing the position on December 31st, 1921, though, as shewn in the next paragraph, they may not include bungalows.

In view of the discrepancies, the figures can only be taken as approximately correct. In some districts their accuracy may be questioned. Possibly converted army huts or bungalows erected by private persons have not been included in the returns from some districts. This is suggested, for instance, by the return for the Marshland R.D.:—The Clerk states that 28 houses were erected or completed in 1921, and that 6 were in course of erection, Dec. 31st, 1921. The Report of the M.O.H., dated March 1st, 1922, states that the number of new houses, including bungalows, built during the year 1921, was 56.

The report of the M.O.H. is as a rule not written until two or three months, or even later, after the end of the year to which it refers. It is not unusual to find that the figures given in his report of houses built, is the total of the two columns given in the tabular statement.

Generally, from the returns, it would appear, for the administrative County, that at least 725 houses were erected in 1921, and that 336 houses were in course of erection on Dec. 31st, 1921.

DISTRICT.	No. of Houses Erected or completed in 1921.	No. of Houses in Course of Erection. Dec. 31st, 1921.
Aylsham, R.D.	67	25
Blofield, R.D.	32 (16 p.p.)	5 (2 p.p.)
Depwade, R.D.	72	9 (1 p.p.)
Docking, R.D.	64 (32 p.p.)	20
Downham, R.D.	16 (8 p.p.)	4 (p.p.)
Erpingham, R.D.	24	8
East & West Flegg, R.D.	8 (p.p.)	nil
Forehoe, R.D.	50	16
Henstead, R.D.	50 (6 p.p.)	11 (5 p.p.)
†Loddon & Clavering, R.D.	13 (3 p.p.)	nil
West Lynn, R.D.	nil	nil
Freebridge Lynn, R.D.	17 (11 p.p.)	17 (8 p.p.)
*Marshland, R.D.	28 (†28 p.p.)	6
Mitford & Launditch, R.D.	9 (9 p.p.)	3 (3 p.p.)
St. Faith's, R.D.	54 (10 p.p.)	40
Smallburgh, R.D.	42 (26 p.p.)	6
Swaffham, R.D.	8	nil
Thetford, R.D.	18	38
Walsingham, R.D.	24 (7 p.p.)	nil
Wayland, R.D.	8	1
Total	504	209

† It has been suggested that this is an understatement.

\* The M.O.H. gives 56 including bungalows.



HOUSING—1921.

1 UNFIT DWELLING HOUSES.

Inspection (1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) - - - - - 6433

(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910 - - - - - 3630

(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation - - - - - 559

(4) Number of dwelling-houses (exclusive of those referred to under preceding sub-heading) found not to be in all respects reasonably fit for human habitation - - - - - 963

2 REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers - - - - - 1096

3 ACTION UNDER STATUTORY POWERS.

A—Proceedings under Section 28 of the Housing, Town Planning, &c., Act, 1919.

(1) Number of dwelling-houses in respect of which notices were served requiring repairs - - - - - 169

(2) Number of dwelling houses which were rendered fit—  
(a) by owners - - - - - 110  
(b) by Local Authority in default of owners - - - - - 10

(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close - - - - - nil

B—Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied - - - - - 828

(2) Number of dwelling-houses in which defects were remedied—  
(a) by owners - - - - - 835  
(b) by Local Authority in default of owners - - - - - nil

C—Proceedings under Sections 17 and 18 of the Housing, Town Planning &c., Act, 1909.

(1) Number of representations made with a view to the making of Closing Orders - - - - - 58

(2) Number of dwelling-houses in respect of which Closing Orders were made - - - - - 45

(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit - - - - - 11

(4) Number of dwelling-houses in respect of which Demolition Orders were made - - - - - 4

(5) Number of dwelling-houses demolished in pursuance of Demolition Orders - - - - - 4

Total of Administrative County	Aylsham	Blofield	Depwade	Docking	Downham	Erpingham	E. & W. Flegg	Forehoe	Henstead	Loddon and Clayering	West Lynn	Freebridge Lynn	Marshland	Mitford and Launditch	St. Faiths	Smallburgh	Swaffham	Thetford	Walsingham	Wayland	Total Rural Districts	Cromer	East Dereham	Diss	Downham Mkt.	Hunstanton	Sheringham	Swaffham	North Walsham	Walsoken	Wells-next-Sea	King's Lynn M.B.	Thetford M.B.	Total Urban Districts
	915	570	250	92	105	750	71	—	240	405	3	73	12	1009	—	610	189	—	66	129	5489	10	450	34	2	17	21	—	12	126	—	155	117	944
	522	289	135	—	46	750	71	—	—	372	—	46	—	975	63	—	153	—	53	84	3559	—	—	23	—	—	21	—	—	—	—	27	—	71
	2	3	14	—	3	496*	—	—	—	4	—	3	—	—	—	—	7	—	6	4	542	—	—	2	2	—	—	—	2	—	—	11	—	17
	12	50	100	81	21	—	29	—	2	—	1	33	—	385	10	11	58	—	8	25	826	—	95	—	—	15	—	—	7	20	—	—	—	137
	450	120	—	72	24	6	nil	—	—	97	3	20	—	34	—	54	61	7	20	14	982	nil	20	24	—	11	11	—	—	14	—	—	34	114
	—	13	16	—	19	—	11	—	—	—	—	3	—	8	20	48	26	—	—	5	169	—	—	—	—	—	—	—	—	—	—	—	—	nil
	—	9	12	—	12	—	8	—	—	—	—	3	—	—	20	22	20	—	—	4	110	—	—	—	—	—	—	—	—	—	—	—	—	nil
	—	1	—	—	1	—	—	—	—	—	—	—	—	8	—	—	—	—	—	—	10	—	—	—	—	—	—	—	—	—	—	—	—	nil
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	nil	—	—	—	—	—	—	—	—	—	—	—	—	nil
	293	110	11	—	22	92	18	—	27	112	—	27	11	24	11	—	10	18	22	12	820	1	—	—	2	4	—	—	—	—	—	—	1	8
	293	102	6	—	17	90	11	—	27	97	—	25	11	24	—	63	10	18	22	12	828	1	—	—	2	4	—	—	—	—	—	—	—	7
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	nil	—	—	—	—	—	—	—	—	—	—	—	—	nil
	4	1	14	—	2	—	—	—	—	—	—	—	—	—	—	1	—	—	14	2	38	1	—	2	—	4	—	—	2	—	—	11	—	20
	4	1	14	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	6	2	32	1	—	2	—	—	—	—	2	—	—	8	—	13
	—	—	5	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	9	—	—	—	—	—	—	—	—	—	—	2	—	2
	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	2	—	2
	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	2	—	3

\* In Erpingham R.D. figures for (3) & (4) were not differentiated.





DISTRICT.	No. of Houses Erected or completed in 1921.	No. of Houses in Course of Erection, Dec. 31st, 1921.
Cromer, U.D.	nil	nil Building Scheme abandoned
East Dereham, U.D.	12 (2 p.p.)	nil
Diss, U.D.	nil	40 (14 p.p.)
Downham, U.D.	nil (Housing Scheme abandoned)	3 (3 p.p.)
Hunstanton, U.D.	1 (1 p.p.)	nil
Sheringham, U.D.	17 (p.p.)	nil
Swaffham, U.D.	10	nil
North Walsham, U.D.	20 (8 p.p.)	10
Walsoken, U.D.	1 (also 2 Army Huts converted)	1 (also 1 Army Hut being converted)
Wells-next-Sea, U.D.	15	9
King's Lynn, M.B.	32 (18 p.p.)	4
Thetford, M.B.	13 (1 p.p.)	60
Total	121	127

*Note.* p.p.—*private persons.*

In one or two instances the Clerk or the M.O.H. does not give the number of houses erected by private enterprise. The next table gives them for each district, so far as I can differentiate them from the returns received.

From the Returns sent in, in the following Districts houses are stated to have been erected, or to be in the course of erection by Private Persons, as follows:—

DISTRICT.	No. of Houses Erected or Completed in 1921.	In the Course of Erection, Dec. 31st, 1921.
Blofield, R.D.	16	2
Depwade, R.D.		1
Docking, R.D.	32	
Downham, R.D.	8	4
East & West Flegg, R.D.	8	
Henstead, R.D.	6	5
Loddon & Clavering, R.D.	3	
Freebridge Lynn, R.D.	11	8
Mitford & Launditch, R.D.	9	3
St. Faith's, R.D.	10	
Smallburgh, R.D.	26	
Walsingham, R.D.	7	
Total Rural Districts	136	23

DISTRICT.	No. of Houses Erected or Completed in 1921.	In the Course of Erectlon, Dec. 31st, 1921.
East Dereham, U.D.	2	
Diss, U.D.		14
Downham, U.D.		3
Hunstanton, U.D.	1	
Sheringham, U.D.	17	
North Walsham, U.D.	8	
King's Lynn, M.B.	18	
Thetford, M.B.	1	
	<hr/>	<hr/>
Total Urban Districts	47	17
	<hr/>	<hr/>
Total number in County erected by District Councils	542	} 725
„ „ „ „ Private Persons	183	
Total number in the course of erection, Dec. 31st, 1921, by District Councils	-	296
Ditto, by Private Persons	-	40
		} 336

## SECTION V.

**TUBERCULOSIS.**

The Tuberculosis work of the Norfolk Insurance Committee was taken over on the date fixed. A second Tuberculosis Medical Officer was appointed to commence duties in January, 1922.

The estimated expenditure for the year ending 31st March, 1922, was £15,834.

Treat- ment	{	Residential Sanatoria, etc., £8,574	} Administration £2527
		Stanninghall Colony £2913	
		Domiciliary £1820	

The estimated income (grants, etc.) was £9923.

NOTIFICATIONS received by me from 2nd January, 1921, to December 31st, 1921, totalled:—

Form A Primary Notifications—Pulmonary	292	Non Pulmonary	65
Form B (School)	„	„	3
Form C (Sanatoria)	„	„	72
			9
			2

TREATMENT.—Institutional treatment was afforded to 179 persons, and Domiciliary treatment to 164 persons. Of those receiving institutional treatment, in 18 pulmonary cases the disease was arrested, and in 33 pulmonary cases improved. Of those receiving domiciliary treatment (which includes provision of shelters), in 22 pulmonary cases the disease was arrested. Of 16 non-pulmonary cases which received institutional treatment 2 were

cured and 2 improved. Of 15 non-pulmonary cases which received domiciliary treatment, 4 were cured. On December 31st, 1921, 125 pulmonary and 14 non-pulmonary cases were in institutions, and 316 pulmonary and 36 non-pulmonary having domiciliary treatment.

DEATHS.—There were 7 deaths (3 pulmonary, 4 non-pulmonary) among those who had received institutional treatment during the year, and there were 111 deaths (105 pulmonary and 6 non-pulmonary) among those who had received domiciliary treatment.

[Under Vital Statistics, in a former section, it will be noted that 251 deaths in the administrative county were due to tuberculosis of the respiratory system, and 68 deaths to other tuberculous diseases, giving a total of 319 deaths in 1921 as due to tuberculosis, as against 369 notifications.]

Effective co-operation has been arranged between the tuberculosis officers and practitioners. All school cases suspected of early tuberculosis are referred to the tuberculosis officers for special examination. Definite cases of tuberculosis found in school medical inspection are at once notified on Form B, to the District Medical Officers of Health, and in due course come for consideration as to treatment under the County Tuberculosis Scheme.

DISPENSARY AT THE WALK, BANK COURT, NORWICH.—Arrangements are made by appointment with patients. In 1921, 455 examinations were made.

ADVANCED CASES.—In Norfolk, as elsewhere, there is no special provision made for these. Two or three years ago I suggested that provision might eventually be made for all classes of cases, at Stanninghall, which would make for economy of administration, without detriment to any class of case.

STANNINGHALL COLONY is worked under a Joint Committee representing the County of Norfolk, the City of Norwich, and the County Borough of Great Yarmouth, with Representatives of the Red Cross Society. The Colonists are all ex-service men, who are being trained in appropriate branches of industry. They have also erected a carpenters' shop, poultry house, pig styes, etc., in connection with the Colony—their industries including poultry keeping, pig keeping, market gardening, carpentry, boot repairing, book keeping and upholstery. The average number accommodated in the Colony during the year 1921, was about 30. Nearly half of them were Norfolk men (the others from Norwich and Yarmouth).

The total expenditure on maintenance and establishment charges for the year ending March 31st, 1922, amounted to £3996 7s. 4d. This meant an expenditure, per patient, per annum, for maintenance, £74 17s. 6d., for establishment charges, £54 0s. 9d., or a total of £128 18s. 3d. per patient. This average



should decrease with an increased number of patients. The Farm made a heavy loss through adverse circumstances, drought, fall in prices of stocks, etc. The Ministry of Health allowed a grant of £8,640 (£7,660 in respect of capital expenditure by the British Red Cross Society and £980 in respect of that made by the Joint Committee).

As regards the health of the Colonists, the clinical results obtained by graduated labour under the direction of the Medical Superintendent (Dr. Christopherson) were good.

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## SECTION VI.

### THE SALE OF FOOD AND DRUGS ACTS.

These Acts are administered by the County Council. Two County Inspectors take samples, which are submitted to the County Analyst.

The County Analysts returns enable me to compile the following figures for 1921.

Samples.	Submitted.	Adulterated.	Prosecutions.
MILK	407	33 (23 deficient in fat. 10 showing added water.)	14 7 for deficiency of fat (15% to 46%) 7 for adulteration (8% to 15%) 5 Cautions.
BUTTER	68	12 (Boric Acid present but not exceeding 12 grs. per lb.)	
OTHER MATERIALS	143	15 (13 contained small quantities of preservative. 2 Samples of Vinegar were not derived from Malt.)	

### PUBLIC HEALTH (Milk & Cream) REGULATIONS, 1912 & 1917.

The Ministry of Health, in January of each year, requires a report from the County Medical Officer of Health. The following report was submitted on Jan. 4th, 1922, for the year ended Dec. 31st, 1921.

1. Hitherto it has not been the practice in this County to take samples specially under these Regulations, but the County Analyst regularly examines for the presence of preservatives all samples of Milk and Cream taken under the Food and Drugs Acts. During the coming year samples will be taken under the Regulations by the Inspectors.
2. MILK.—During 1921, 412 samples of milk were examined for preservatives.

*Result.*—No preservative found.

3. CREAM, not sold as preserved Cream—3.  
     No. of samples examined for the presence of a  
     preservative—3.  
     No. of samples in which preservative found—none.
4. CREAM sold as preserved Cream.  
     No. of samples examined—none.
5. Thickening substances—none found.

REMARKS.—It is desirable that samples should be taken under the Regulations; and that, at least a few samples of Cream, sold as preserved Cream, should be taken and examined regularly, in order to note (1) whether the statutory label is affixed; (2) to compare the percentage of preservative found, with the percentage stated on statutory label, and thus test the correctness of the statements made; (3) to determine the amount of fat in Cream sold as preserved Cream, to see that it is not below the standard figure; (4) to determine that no illegal thickening substance has been added.

(*Signed*) J. T. C. NASH,  
 County Medical Officer of Health.

## SECTION VII.

### FOOD SUPPLIES.

Apart from the Sale of Foods and Drugs Acts, the District Councils are responsible for Supervision under the Public Health Acts and Regulations, the Dairies, Cowsheds, and Milkshops Orders, etc.

SUPERVISED PREMISES.—Generally, the district reports mention the number of bake-houses, slaughter-houses, cowsheds, milkshops and dairies in each district, and the number of inspections made. In Walsingham Rural District, quarterly visits are made by the Sanitary Inspector to these premises, and this is to be commended—ensuring 3 or 4 inspections of each premises yearly. In one district with 30 cowsheds, etc., the visit of inspection hardly averaged 1 a year. Other reports fail to give the number of premises to be supervised, or the number of visits of supervision. Generally, the various premises were reported as satisfactory—though a few required reminders as to limewashing.

A few seizures of tuberculous carcasses, or other food condemned as unfit for human consumption are recorded in some reports.

MILK SUPPLIES.—Unless cleanliness is practiced in detail in connection with byres, animals, milkers and utensils, a considerable amount of extraneous dirt (accompanied by a host of bacteria, many of intestinal origin) gains access to milk, which being an ideal

nutritive pabulum or medium for growth of bacteria, becomes the breeding-place of myriads of undesirable or even dangerous germs, especially in warm weather. The particulate dirt, visible to the eye, can be tolerably easily removed by straining, but the microscopic bacteria pass through the strainer by millions. This is illustrated, *e.g.*, by :—

The following report, which was made by me, on 4 samples of Milk submitted for bacteriological examination by the King's Lynn Corporation, and which was reproduced in full in the minutes of the Health Committee of the Corporation.

Sample 1.—No. of organisms growing on Agar after 46 hours incubation at 37° C.....5,200,000 per C.C.

Of this number at least 100 were of intestinal origin.

Sample 2.—No. of organisms growing on Agar after 46 hours incubation at 37° C.....7,000,000 per C.C.

Of this number at least 10,000 were of intestinal origin.

Sample 3.—No. of organisms growing on Agar after 46 hours incubation at 37° C.....5,550,000 per C.C.

Of this number at least 1,000 were of intestinal origin.

Sample 4.—No. of organisms growing on Agar after 46 hours incubation at 37° C.... 3,550,000 per C.C.

Of this number at least 10 were of intestinal origin.

The examination carried out with regard to visible dirt in all four samples proved satisfactory. This test may, however, be of little value as possibly the Milks had been strained.

CONCLUSIONS AND SUGGESTIONS.—The results of bacteriological examination indicate that the sanitary condition of the premises and (or) the methods of production and handling of the milks of which samples have been submitted are not satisfactory and suggest a more rigid but yet discretionary enforcement of the various Dairies, Cowsheds and Milkshops Orders and Regulations.

All the Milks show the presence of intestinal bacteria in considerable numbers—one sample showing no fewer than upwards of 10,000 per c.c.

Such results must mean uncleanly conditions as regards one or more of the following :—Cowsheds, Cows, Milkers, Milking-places, Milking Vessels, Cooling Apparatus (if used) or Vendor's premises.

Without requiring anything more than is practicable at reasonable expense in connection with existing Cowsheds and Milking places, a relatively clean milk can be obtained by following inexpensive precautions which should be made known to all concerned :—

1. The Cows should be KEPT CLEAN as regards the flanks, hind quarters, and udders.

2. Just before milking, the udders should be thoroughly wiped with a clean cloth wrung out of boiled water.



3. The Milker should have a clean cap and overall, and should thoroughly wash and dry his hands on a clean towel just before milking.

4. The milking should be done into a small top milking pail (that is a pail the mouth of which is two-thirds covered).

5. All vessels (pails, churns, etc.) should be thoroughly cleansed after use, and should be sterilised with steam immediately before used for milk.

The above precautions will enormously reduce bacterial pollution of milk.

At Farms and Dairies where a cooling apparatus is in use great care should be taken that this is kept in a clean and sanitary condition, for if not kept scrupulously clean the cooler may itself contaminate the Milk.

(Signed) J. T. C. NASH,

County Medical Officer of Health.

NOTE.—All the above Samples came from cowkeepers outside the Borough boundary in the County area. The results point to the necessity for stricter supervision as regards the matters mentioned by me in the "Conclusions" above, in the various districts in the County.

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## OTHER FOOD SUPPLIES.

BRANCASTER STAITHE SHELL FISHERY.—At the beginning of August, Dr. Sumpter received a telegram from the Fishmongers' Company, saying, "The sale of Whelks, from Brancaster, was stopped on the London Market;" and asking him "to send samples of cooked and uncooked Whelks to them." He did this, also sending samples to the County M.O.H. The reports on the uncooked Whelks were unfavourable and this gave an immediate clue to the source of pollution, as they came from an area which would be liable to contamination from the Hunstanton sewage.

The County M.O.H. went thoroughly into the matter with Dr. Sumpter, and suggested that if Whelks were not taken from a defined area, and were boiled longer, we could recommend the Fishmongers' Company to remove the embargo. The Fishermen promised to follow these instructions, but the Fishmongers' Company would not agree until their representative and Bacteriologist had been down and seen for themselves. They came towards the end of the month, and arrived at the same conclusion we had, and the embargo was removed.

Much assistance was courteously given by the Hunstanton Urban Sanitary Inspector, both in indicating the course of the effluent from the Hunstanton Sewer, and also in procuring numerous samples of sea water, sand, etc., from the suspected area.

## SECTION VIII.

**POLLUTION OF RIVERS.**

No complaints were received by the County Council during the year, and none of the district reports make reference to any specific case. The pollution of the stream that runs through Hargham via Attleborough, is, I believe, still a matter of controversy. Attleborough being a town without a public water supply, has not many W.C.'s contributing to its sewage, but one of its three sewers drains into the Hargham brook, which may also receive some of the effluent from the Cyder factory, near the railway station.

Norwich takes its water supply from the Wensum; and Great Yarmouth, from the Bure and adjacent broads. Beyond washings from cultivated lands, there can be no gross pollution of either of these rivers, and the waterworks in each can provide for storage and filtration before the water is distributed.

**SEWERAGE AND DRAINAGE.**

These are dealt with in the various district reports. It may be noted that at Hunstanton the system of sewage disposal in vogue proved inadequate during the Summer months. A projected scheme was adopted and forwarded to the Ministry of Health, which is a modification of the Septic Tank process in combination with tidal storage; making provision in duplicate of continuous flow sedimentation tanks preceded by grit chambers capable of dealing with three times the daily dry weather flow (in Summer). The storage tank (to be equal to nine hours of the minimum flow) will automatically hold up the sewage during the flood tide, and discharge at high water only.

J. T. C. NASH,

County Medical Officer of Health.

## Brief Extracts from Reports of District Medical Officers of Health, 1921.

### M.B. of KING'S LYNN.

Birth rate 21'83.      Death rate 11'24.  
Infantile Mortality rate 72'89 (74'7. R.G.).

HOUSING.—Still great need of new houses. Many of the smaller houses in the older parts of the town are unfit for habitation, and until houses are built to replace them the unfit houses cannot be condemned.

14 new houses erected. Closing Orders made in respect of 8·2 demolished.

Small Pox Hospital has accommodation for 14 patients.

The Port Isolation and Infectious Diseases Hospital contains 12 beds. Was used for isolating 6 out of 55 notified cases of Scarlet Fever in 1921.

MATERNITY AND CHILD WELFARE.—Health Visitor paid 380 first visits; 1409 subsequent visits; 9 visits *re* still-born children. She attends weekly at the Infant Welfare Centre.

Voluntary Centre open 46 times. 105 new children. Attendance 1411. Average 31.

A Minor Ailment Clinic is run in connection with the Centre; other cases are referred to the Lynn and West Norfolk Hospital, or patients are instructed to consult their own doctor.

### M.B. of THETFORD.

Birth rate 17'83 (19'11 R.G.)      Death rate 8'49 (11'7 R.G.).  
Infantile Mortality rate 71'4 (77'7 R.G.).

Voluntary Infant Welfare Centre, at Town Hall, every other Wednesday, at 3 o'clock. Reports made quarterly to County M.O.H. Organised by Mrs. Bidwell. Staff of 6 ladies includes 3 trained nurses. Secretary:—Miss A. H. Bidwell. Babies weighed and inspected by M.O.H. and hygiene advice given. Cards for record of weight, and any note of importance in health history. The system of giving lectures has been abandoned because of the noise of the babies. The Nurses "follow-up" at the homes. Milk provided for necessitous cases. In 1921, 93 attended; making 597 total attendances. Average attendance per meeting 23. Home visits 678. Ante-natal work commenced in December, 1921. A Thrift Club has been started to help mothers to put by money for lying-in-period.

Water Supply excellent.

HOUSING.—13 new houses in 1921. More required,



**CROMER.**

Birth rate 16'7.                      Death rate 8'7.  
                          Infantile Mortality rate 29'8.  
 Phthisis Death rate 0'9.              Cancer Death rate 1'24.

HOUSING.—1 house condemned and closed.

Incidence of Infectious Diseases, included—3 cases of Diphtheria; 2 of Scarlet Fever; 1 of Enteric Fever. Four cases were isolated at the Hospital at Roughton.

**EAST DEREHAM.**

Birth rate 20'24.              Death rate 11'09.  
                          Infantile Mortality rate 86'9.

Notification of notifiable diseases—Scarlet Fever 3; Diphtheria 26.

The excess of Diphtheria was mainly a continuation of the outbreak in 1920, which apparently was attributable to a child who had had diphtheria, which had returned to School on a negative swab. Schools were closed for 3 weeks.

HOUSING—12 new houses.

**DISS.**

Birth rate 14'0 (16'9 R.G.).      Death rate 14'3.  
                          Infantile Mortality rate 118'6.

The Infantile Mortality for the five years 1917--1921 averages 98'4.

No. of Home-Visits for Infants 489. No. of Infants attending Weighing Centre 22.

Water Supply—Average consumption per head, per day, 17'6 gallons. No cases of Scarlet Fever, Diphtheria or Typhoid Fever notified in 1921.

HOUSING—26 new houses; 2 unfit for human habitation and closing orders made.

**DOWNHAM MARKET.**

Birth rate 16'6.                      Death rate 14'5.  
                          Infantile Mortality rate 25'6.

HOUSING—3 in course of erection 1921,

**NEW HUNSTANTON.**

Birth rate 8'56.      Death rate 10'54.

Infantile Mortality rate 153'8. *(1920 = 68.9; 1919 = 55.5*

Cause of sickness—nothing noteworthy.

*Average 1914 to 1918 = 34.4*

ISOLATION HOSPITAL has 5 beds; used occasionally for Scarlet Fever and Diphtheria. Could be used for Small-pox if required.

SEWAGE DISPOSAL.—Present system inadequate in the summer. A Scheme projecting the modification of the Septic Tank in combination with tidal storage for discharge at High Water only is awaiting a Local Enquiry by the Ministry of Health.

**SHERINGHAM.**

Birth rate 17'61.      Death rate 9'08.

Infantile Mortality rate 62'5.

Under Notifiable Diseases—Diphtheria, 5 cases; Scarlet Fever 16.

A Social Service League provides a Nurse, and acts as a Local Care Committee in connection with cases recommended for treatment by the S.M.O.

HOUSING—17 new houses.

**SWAFFHAM.**

Birth rate 15'23 (R.G.).      Death rate 16'6 (R.G.).

Infantile Mortality rate 90'9 (R.G.).

WATER SUPPLY—Excellent, but shortage felt so that supply was only available at limited but regular intervals.

M. & C.W. Centre—Average attendance 11.

HOUSING—10 new houses completed and occupied. Still a shortage of houses with good accommodation at a small rent.

**NORTH WALSHAM.**

Birth rate 20'4.      Death rate 8'8.

Infantile Mortality rate 47'06.

M. & C.W. Centre now held on alternate Tuesdays, at 2.30, at Congregational Room, Vicarage Street.

NOTIFIABLE DISEASES.—Diphtheria 3 cases, Scarlet Fever 19.

The 3 cases of Diphtheria and 14 of the Scarlet Fever cases were admitted to Hospital.

The Erpingham Rural District have combined with the North Walsham Urban District, as to the Isolation Hospital at Roughton. The hospital had 8 beds in 1921, but another block was to be added this year. The authority keeps a special conveyance for infectious cases.

HOUSING—20 new houses. 2 unfit and closed.

## WALSOKEN.

Birth rate 27'3.                      Death rate 9'3.  
 Infant Mortality rate 120'3 (111'1 R.G.).

Infant Welfare Centre—107 infants seen during the year.

Notifiable Diseases—36 cases of Scarlet Fever, 25 removed to hospital.

Isolation Accommodation.—A Joint Hospital with Wisbech Urban District Council for ordinary infectious diseases, 35 beds; also a separate Small-pox Hospital, 14 beds.

HOUSING—Only 1 new house built. Many working-class dwellings required.

Water Supply from Marham was abundant.

## WELLS.

Birth rate 22'3.                      Death rate 10'4.  
 Infantile Mortality rate 34'4.

WATER SUPPLY.—Shallow wells, subject to pollution. The M.O.H. advocates obtaining a supply from outside the inhabited area. The water supply to the new houses on the Mill Lane Estate is good. In many of the old yards there is a deficiency of appropriate Curtilage for each occupied house.

HOUSING—24 new houses all occupied.

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## RURAL DISTRICTS.

### AYLSHAM.

Birth rate 22'0.                      Death rate 12'9.  
 Infantile Mortality rate 41.

Chief Causes of Death—Heart Disease, Cancer, Tuberculosis, in order named.

Infant Welfare Centre at Aylsham failed. Reason given—“Mothers with weakly and ill-clad babies were unwilling to bring them more than once to be compared with those more robust and better clothed.”

NOTIFIABLE DISEASES.—Diphtheria most prominent; 69 notified; 6 deaths. Outbreaks at Coltishall and Hevingham were subjects of special report. Subsequent to this a number of Cases were treated with a mixed antogenous vaccine, prepared at the Norfolk County Laboratory, with good result. After circularisation of practitioners, notification of Tuberculosis now more satisfactory. Ophthalmia Neonatorum 1 case. Vision not impaired.



23 parishes without a Nurse.

A Small-pox Hospital (2 beds) near Aylsham.

Public Scavenging at Aylsham, Coltishall, Hautbois, and Hackford.

HOUSING.—64 new houses. + closing orders.

The M.O.H. thinks the limited housing accommodation is the main factor in the decrease of population revealed by the Census.

### **BLOFIELD.**

Birth rate 20'6 (18'9 R.G.). Death rate 11'6 (10'7 R.G.).

Chief Causes of Death—Heart Disease, Cancer, Tuberculosis, in order named. 1 death from Puerperal Sepsis.

Infantile Mortality rate 38. In commenting on provision of milk for necessitous expectant and nursing mothers, the M.O.H. expresses confidence that there is no better way of expending money in the interests of public health.

NOTIFIABLE DISEASES.—Diphtheria 12; Scarlet Fever 3; Enteric Fever 2; no deaths. Ophthalmia Neonatorum, no cases.

5 parishes without a Nurse.

Infant Welfare Centre at Blofield and Woodbastwick (Red Cross Management).

HOUSING—32 new houses. Closing orders 1.

### **DEPWADE.**

Birth rate 20'94. Death rate 13'68.

Infantile Mortality rate 47'73 (42'7 R.G.).

Puerperal Fever 4 deaths.

Chief Causes of Death—Heart Disease, Respiratory Disease, Cancer, Tuberculosis.

A Baby Welfare Centre at Harleston.

HOUSING—81 new houses. Closing orders 14 (5 deferred). Demolition order 1.

Notifiable Diseases.—Diphtheria 22 (4 sent to Hospital). Ophthalmia Neonatorum 3 cases. Vision not impaired 3.

### **DOCKING.**

Birth rate 19'68. Death rate 11'22.

Infantile Mortality rate 33'53.

Notifiable Diseases.—Ophthalmia Neonatorum 0. Puerperal Fever 1 (died). Diphtheria 14; Scarlet Fever 8; Enteric Fever 2 (no deaths).

Nursing.—Scope for 4 more nurses.

A Baby Weighing Centre at Brancaster.

Water Supply. —A Shortage during the drought. At Burnham Market, a Tube Well has been sunk; satisfactory.

Brancaster Staithe Shell Fishery. See p. 17.

HOUSING.—64 new houses. No closing orders.

## **DOWNHAM.**

Birth rate 21·2.                      Death rate 12·4.

Infantile Mortality rate 70·7.

Ophthalmia Neonatorum 0. Diarrhœa 5.

Notifiable Diseases.—Diphtheria 6; Scarlet Fever 13; no deaths.

No Isolation Hospital.

HOUSING.—New houses 16, and 4 in course of erection: 5 closing orders. Overcrowding in 92 houses. (About 2% of occupied houses!).

## **ERPINGHAM.**

Birth rate 17·92.                      Death rate 11·17.

Infantile Mortality rate 74·6. (71·4 R.G.),

Ophthalmia Neonatorum 1; vision unimpaired.

Notifiable Diseases.—Diphtheria 7; Enteric Fever 4; Scarlet Fever 21. Eight of Scarlet Fever admitted to Isolation Hospital at Roughton.

Isolation Hospital 8 beds. Another block of 2 wards to be added. Now shared with North Walsham Urban District Council.

HOUSING.—46 new houses. No closing orders.

## **ST. FAITHS.**

Birth rate 21·5.                      Death rate 8·1.

Infantile Mortality rate 21·2.

Ophthalmia Neonatorum 0; Diphtheria 28; Scarlet Fever 17; No deaths.

Chief Causes of Death—Cancer, Tuberculosis, Heart Disease. Notification of Tuberculosis efficient.

Isolation Accommodation—No Hospital in district—but cases occasionally admitted at Norwich. An arrangement also for sending cases of Small Pox, if any, to Norwich Small Pox Hospital.

HOUSING—94 new houses. No closing orders.

**FLEGG, EAST and WEST.**

Birth rate 18'1.      Death rate 11'3.  
 Infantile Mortality rate 48'5

Ophthalmia Neonatorum 0; Scarlet Fever 8; Diphtheria 9.  
 No deaths.

Chief Causes of Death—Cancer, Heart Disease, Tuberculosis.  
 Isolation Hospital—None.

HOUSING—58 new houses. Closing orders 0. Scarcity of  
 vacant houses—some overcrowding

**FOREHOE.**

Birth rate 21'4.      Death rate 9'9 (11'6 R.G.).  
 Infantile Mortality rate 49'3 (57'3 R.G.).

Ophthalmia Neonatorum 2; Puerperal Fever 1.

Notifiable Diseases—Diphtheria 12; Scarlet Fever 9. No  
 deaths.

Isolation Hospital is at Wicklewood, 8 beds.

HOUSING—56 new houses. Closing orders 6.

Water supply of Hingham, bad.

**FREEBRIDGE LYNN.**

Birth rate 18'7 (20'6 R.G.).      Death rate 12'5.  
 Infantile Mortality rate 45'4 (41.3 R.G.).

Ophthalmia Neonatorum 0.

Other Notifiable Diseases—Diphtheria 2 (1 death); Scarlet  
 Fever 10.

No Isolation Hospital.

Water supply—a large number of wells went dry, water had to  
 be rationed, but no apparent effect upon health.

Chief Causes of Death—Cancer, Heart Disease, Respiratory  
 Disease, Tuberculosis.

HOUSING—24 new houses. No closing orders. 19 cases of  
 overcrowding owing to lack of houses.

**HENSTEAD.**

Birth rate 21'03.      Death rate 12'74.  
 Infantile Mortality rate 62'5.

Chief Causes of Deaths—Cancer, Heart Disease, Tuberculosis.  
 Infectious Disease—Ophthalmia Neonatorum 0; Diphtheria 17;  
 Scarlet Fever 17,



Isolation—3 cases of Scarlet Fever were removed to the Norwich Isolation Hospital. For removal of infectious cases a Motor Car is hired and is disinfected at the Norwich Isolation Hospital.

HOUSING—44 houses built by District Council in the year, 6 others in course of erection. No closing orders.

### **WEST LYNN.**

Population 900. Birth rate 16'55. Death rate 15'55.  
Infantile Mortality rate 71'42 (66'6 R.G.).

Infectious Diseases—Diphtheria 1 (a visitor who came ill.)

Water Supply from King's Lynn.

HOUSING—No new houses. No closing orders.

### **LODDON and CLAVERING.**

Birth rate 20'11. Death rate 10'64.  
Infantile Mortality rate 77'86 (73'7 R.G.).

Ophthalmia Neonatorum 1.

Infectious Diseases—Diphtheria 14; Scarlet Fever 29. No Isolation Hospital.

HOUSING—New houses 13. Closing orders 0.

Chief Causes of Death—Cancer, Heart Disease, Tuberculosis.

### **MARSHLAND.**

Population 14,020. Birth rate 24'2. Death rate 9'63.  
Infantile Mortality rate 56 (50'1 R.G.).

Chief Causes of Death—Cancer, Respiratory Disease.

Infectious Diseases—Diphtheria 61, admitted to the District Isolation Hospital 2; Scarlet Fever 71, admitted to the District Isolation Hospital 16.

Isolation Hospital—Arrangement with Wisbech and Walsoken Joint Hospital.

HOUSING—56 new houses. Closing orders nil.

Special Report on Diphtheria outbreak, traced to a fair at Terrington and then to school.

### **MITFORD AND LAUNDITCH (Rural District).**

Birth rate 21'24. Death rate 11'93.  
Infantile Mortality rate 49'8.  
O.N. 0. Childbirth Sepsis, 1 death.

Chief Causes of Death—Heart Disease, Respiratory Disease, Cancer.

NOTIFIABLE DISEASES—Scarlet Fever 7; Diphtheria 15; Enteric Fever 1.

HOUSING—7 new houses. Closing Orders 0.

**SMALLBURGH (Rural District).**

Birth rate 21'5.      Death rate 13 3.  
 Infantile Mortality rate 79'4 (64'6 R.G.).

Chief Causes of Death—Tuberculosis, Heart Disease, Cancer.

NOTIFIABLE DISEASES—Diphtheria 7, Scarlet Fever 3, Enteric Fever 3, Malaria 1.

HOUSING—42 new houses. Closing Orders 0.

**SWAFFHAM (Rural District).**

Birth rate 22'6.      Death rate 13'2.  
 Infantile Mortality rate 73'6 (67'4 R.G.).

O.N. 1. Vision unimpaired.

NOTIFIABLE DISEASES—Diphtheria 4: Scarlet Fever 1.

HOUSING—No new houses. Closing Orders 0.

**THETFORD (Rural District).**

Birth rate 21'9.      Death rate 14'8.  
 Infantile Mortality rate 77'6.

O.N. 1.

Chief Causes of Death—Heart Disease, Cancer.

An I.W.C. opened at Croxton.

NOTIFIABLE DISEASES—Diphtheria 9; Scarlet Fever 2; Enteric Fever 1.

HOUSING—32 new houses. Closing Orders 0. Numerous cases of overcrowding, especially in North Lopham, where no houses are being built.

**WALSINGHAM (Rural District).**

Birth rate 21'5.      Death rate 11'2.  
 Infantile Mortality rate 46'8.

O.N. 0. Puerperal Fever 0.

Chief Causes of Death—Heart Disease, Cancer.

NOTIFIABLE DISEASES—Diphtheria 54 (5 deaths). Scarlet Fever 10.

WATER SUPPLY—Most of the wells dried up and water had to be fetched from a distance and rationed. The Council's houses at Fakenham have ample supply.

An I.W.C. at Walsingham.

HOUSING—41 new houses. Closing Orders 6. Three cases of overcrowding discovered.

**WAYLAND (Rural District).**

Birth rate 20'7.      Death rate 13'6.

Infantile Mortality rate 95'2.

O.N. 0.

One death in Childbirth.

Chief Causes of Death—Cancer.

NOTIFIABLE DISEASES—Diphtheria 23 ; Scarlet Fever 31 ;  
Enteric Fever 1.

WATER SUPPLY—Great shortage. Many wells ran dry.

HOUSING—No new houses. Closing Orders 2.

*Note.* O.N.—*Ophthalmia Neonatorum.*